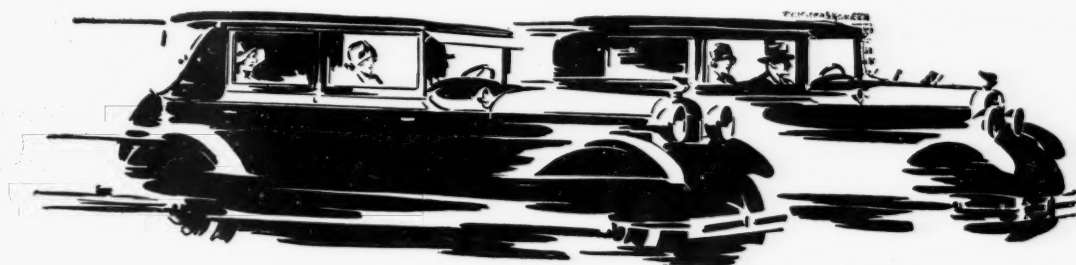


MAR 12 1928

MOTOR AGE

A Chilton Class Journal Publication
Published Weekly March 8, 1928



Cars that Swept the World *Given greatest reception in History*

A buying wave that sweeps away all records—a public ovation of greater success to the most successful “Sixes” in history. That is the reception to the New Hudson and Essex Super-Sixes.

Boston and territory with 800 sales in 10 days; and Detroit and Wayne County, with 659 Essex and 107 Hudson retail sales in 15 days—an unapproached record—merely reflect the country-wide triumph. Everywhere dealers are reporting more than 100% greater sales for the first 15 days of January than for the whole of last January, which was the previous record.

HUDSON MOTOR CAR COMPANY, *Detroit, U. S. A.*

HUDSON-ESSEX

Both are Super-Sixes

It Pays
the repairman
to use the kind
of piston rings
people want

Replace
with
PERFECT
CIRCLES...



WHEN A CAR comes into your shop for an overhaul—it's good judgment on your part to recommend the rings that the car owner knows something about—and wants.

Motorists are constantly learning through PERFECT CIRCLE national advertising that PERFECT CIRCLE *Oil-Regulating* rings save all the oil that isn't actually required for cylinder lubrication—that PERFECT CIRCLE *Compression* rings stop Blow-By and help a motor to deliver that

full, eager power that was built into the motor when it was new.

That's why you build confidence in yourself and the work you do, when you say, "replace with PERFECT CIRCLES."

Eighty percent of the passenger car manufacturers are using PERFECT CIRCLES as standard equipment in part or all of their production. This is proof of their dependability in service.

Replace with PERFECT CIRCLES.

THE PERFECT CIRCLE COMPANY • HAGERSTOWN, INDIANA

PERFECT CIRCLE
PISTON RINGS

KELLOGG COMPRESSORS

It Sure is a Lot of Air Compressor for the Money

The KELLOGG EM-52-S is a husky reliable 2-cylinder air compressor that will supply all the air necessary for tire filling, engine cleaning, spring oiling, occasional paint spraying, and all the other jobs for which air is used in the modern garage or service station.



KELLOGG EM-52-S

Best of all, it's priced at a figure that means "More for your Money" than you ever before dreamed possible in this kind of an air compressor.

The KELLOGG EM-52-S contains features generally found only in much higher priced compressors—look at them!

- 2 cylinders
- 2 1-4" bore by 2" stroke
- 3-4 horsepower motor
- 32 gallon tank
- 3.86 cubic ft. of air
- Automatic control
- Self-cleaning check valve
- Patented KELLOGG Pump and Splash Lubricating System
- Honed cylinders
- Air cleaner and muffler
- Completely equipped

Price

\$205.60
NET



Kellogg Spring Lubricator Kills Squeaks

A scientifically designed portable air lubricator that can be used on the greasing rack or in the lot. Clean, rapid and economical. Used with KELLOGG Penetrating Graphite Oil, it is exceedingly profitable for the modern service station. A one-man job that permits a complete spring lubrication in five minutes. Tank capacity—3 gallons—1 for oil and 2 for air. 25 cars can be serviced on one gallon of oil.

Kellogg Graphite Penetrating Oil

Compounded from 11 different oils and ingredients, each one performing a certain purpose—cleaning, cutting rust, penetrating and finally lubricating.

Price: KELLOGG Spring Lubricator [with 5 gallons KELLOGG Penetrating Graphite Oil]
..... \$28.80 Net
KELLOGG Spring Lubricator [without oil]
..... \$20.00 Net

KELLOGG MANUFACTURING CO.

200 HUMBOLDT STREET

ROCHESTER, N. Y.

ECLIPSE

BENDIX DRIVE



Approximately 1 1/2 Times Actual Size

THE Dealer's Assortment of genuine service parts for the Eclipse Bendix Drive has been prepared for the express purpose of enabling the repairman to make immediate and dependable replacement of parts on the Eclipse Bendix Drive. It contains springs, service sleeves, clips, screws and washers to cover the requirements of more than 75% of the cars in operation today.

Because the Eclipse Bendix Drive is automatic in every operation, and functions without lubrication or adjustment, its parts must be made with the utmost accuracy. To insure satisfactory operation, the repairman should use only genuine service parts, which are exact duplicates of the original parts. Most good distributors have them.

ECLIPSE MACHINE COMPANY, ELMIRA, N. Y.
Eclipse Machine Co., East Orange, N. J. Eclipse Machine Co., Ltd., Walkerville, Ont.

MOTOR AGE

Vol. LIII

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Established 1899

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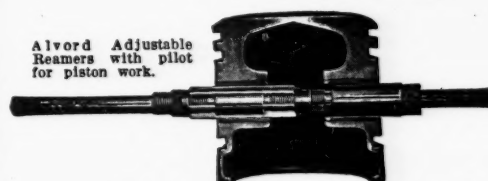
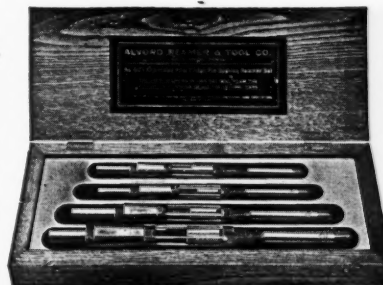
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under Act of March 2, 1879

ALVORD POLK

Anything you
need in tools

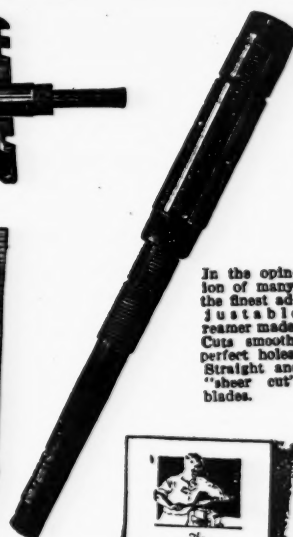
Piston Pin Reamers

Consisting of Reamers
Nos. 50, 51, 52, 53.
Reams the Piston Pin
Bushings of all leading
cars. Lists at \$36.00.

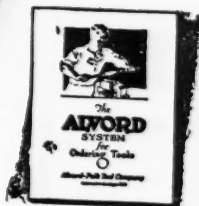


Valve Seat Reamer Set

Contains one 45 degree reamer for seats
1 1/4 to 2 1/4 inch diameter. One 15 degree
reamer for seats 1 1/4 to 2 1/4 inch diameter.
One 75 degree reamer for seats 1 1/4 to 2
inch diameter. Ten pilot stems sized to
fit every possible need.



In the opinion
of many,
the finest ad-
justable
reamer made.
Cuts smooth,
perfect holes.
Straight and
"shear cut"
blades.



The new catalog includes
complete Alvord-Polk line
and full information on
all types and sizes of
cutting tools.

Your Jobber Carries Them!

ALVORD POLK

TOOLS FOR REPAIR SHOPS

Alvord-Polk Tool Company

Millersburg

Pennsylvania

Every automobile salesman knows that it is far easier to offer an improvement than an excuse—which means that it is far easier to tell a prospect that your car *has* the All-Steel Body than to tell him why it *hasn't*.

. . .

EDWARD G.

BUDD

MFG. CO.

Philadelphia and Detroit



Originators of the All-Steel Full Vision Automobile Body

STUDEBAKER

The Great Independent

protects its dealers

- in case of price reduction*
- against yearly commitments*
- in case of termination
of dealership*

STUDEBAKER'S reputation as America's most friendly factory is based, in part, on the measures for dealer protection pioneered by President A. R. Erskine. The three policies outlined above are vitally important from your standpoint.

This friendly factory policy is reflected in the salability of four great Studebaker-Erskine lines. These cars give Studebaker dealers the maximum opportunity to sell the major portion of their motor car markets because they supply every motor car demand.

The new President Straight Eight, unsurpassed in the quality field, sells at

\$1985 to \$2250. The Commander, World's Champion Car, is an unbeatable value at \$1495 to \$1695. The new Dictator, recently increased from 45 to 70 horsepower, is champion of its price class in performance and value at \$1195 to \$1295. The new American Edition of the Erskine Six gives fine car quality for the first time at an extremely low price—\$795 to \$965. All prices f. o. b. factory.

The steady growth and prosperity of Studebaker dealers may be shared by you even though you are located in a small community.

New Contract for towns and villages

For small communities we offer a new and unusual contract. Hardly any capital is necessary. No shop need be operated. No used cars need be handled. No commitments need be made to purchase any particular number of cars. You need sell only the opening wedge of the line, the new American Edition of the Erskine Six at \$795, f. o. b. factory—maintaining an Erskine demonstrator entitles you to sell all other Studebaker models as well as a profitable line of commercial cars. Mail coupon—or wire for information direct to Dept. 51.

THE STUDEBAKER CORPORATION OF AMERICA
Dept. 51, SOUTH BEND, INDIANA

Please send me full information on the Studebaker-Erskine franchise.

Name

Street Address

City and State

My present business (if selling cars now, state make)



Nash Dealers
Now Have the Advantage
of Marketing

World's Lowest Priced 7-Bearing Sixes

Never have merchants with a Nash contract occupied so competitively favorable a selling position as today.

Armed with *reduced prices*; offering the world's lowest priced 7-bearing Sixes; with *six models listed at the factory under \$1000—*

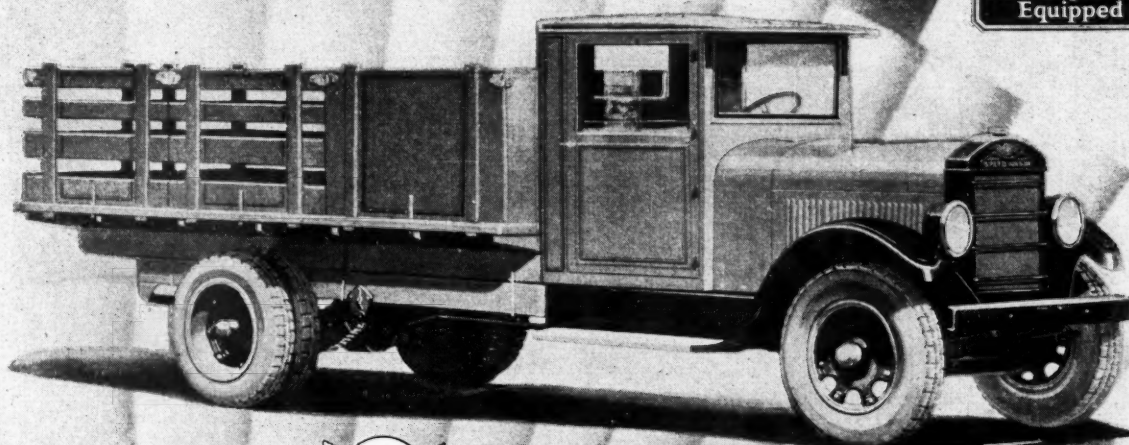
—with 24 models in all, ranging in price from \$845 to \$1990; and with 39 color combinations finished by the special Nash deep-lustre process, the Nash contract and the Nash product offer a dealer the greatest profit opportunity in Nash history.

If you are not familiar with all the latest advantages incorporated in the Nash dealer contract, be sure you write at once.

Your request relative to territory will be held entirely confidential. Address the *Sales Department*, The Nash Motors Company, Kenosha, Wisconsin.

NASH

Leads the World in Motor Car Value



New Departure
Equipped

SPEED WAGON

Speed the Loads!

SHOCK loads transmitted to the bearings increase in intensity as the *square* of the speed—an engineer's way of saying that punishment of the bearings increases much faster than the speed.

Reo has had remarkable success in getting loads there in a hurry—because Reo engineers have always made the chassis bigger than the job.

One sure way of getting ample factors of safety as well as speed and capacity without replacements or readjustments is to use New Departure Ball Bearings, as Reo has done in its new series of Speed Wagons.

THE NEW DEPARTURE MANUFACTURING COMPANY
BRISTOL, CONNECTICUT

Detroit

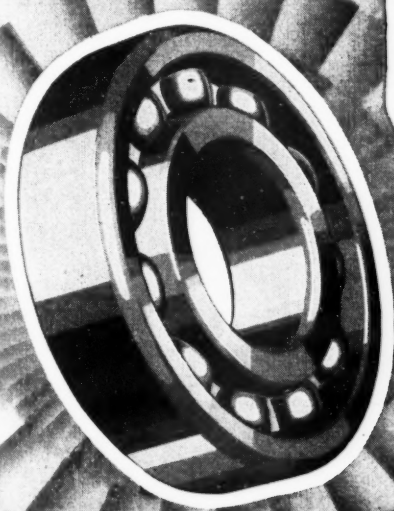
San Francisco

Chicago



Whenever you have a bearing problem our expert engineers will be glad to discuss it with you personally. We will help you to do your thinking.

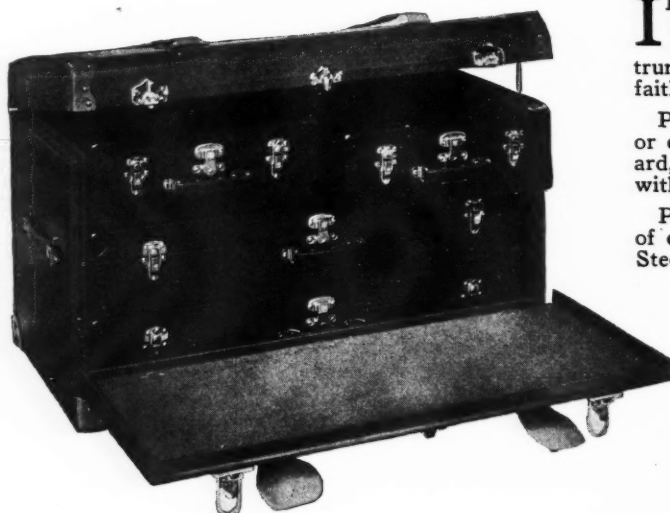
New Departure Quality Ball Bearings



De Luxe !

by PICKARD

For the country's leading cars, Pickard now offers
DeLuxe Trunks in both Fabric and Steel



The Wood-Steel De Luxe Model, illustrated above, is built of 3-ply wood and covered with 22-gauge body steel. Trimmed in black or tan leather; or solid brass, nicked. In the wood-steel model, the same designs are possible as in the fabric-covered line. Guaranteed rumble-proof, dust-proof and water-proof without storm cover.

Fabrikoid De Luxe Model, illustrated in photo to the right, is built of 3-ply wood and covered with Du Pont Fabrikoid. Trimmed in black or tan leather, or solid brass, nicked. Guaranteed dust-proof and water-proof without storm cover.

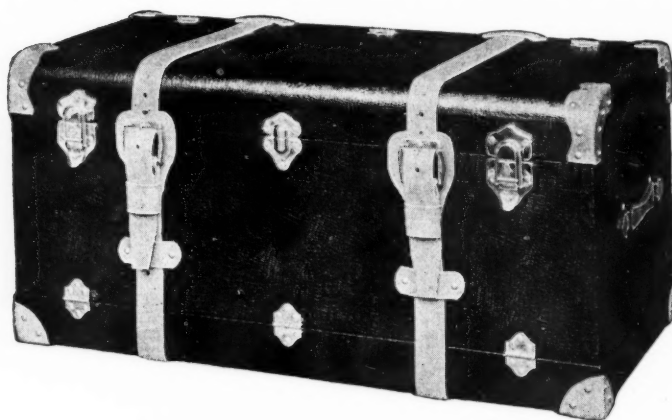
IN PICKARD TRUNKS we use the market's BEST materials; workmanship of craftsmen—everything that assures the best in automobile trunks. Our absolute guarantee means we have full faith in our product.

Pickard offers a complete line of trunks—in black or color; all models, running board, fender, standard, de luxe, wood-steel, and *special* models. Made with or without carrier to fit any make of car.

Pickard Trunks are built on standard principles of construction with Du Pont Fabrikoid or Body-Steel. Made to hold their rigidity, to wear long and keep their shape and fine appearance no matter how hard you use them. Climatic conditions will not affect Pickard Trunks.

Car owners like the *added* touch of refinement, and want Trunks by Pickard. There is an attractive dealers' discount, making it worthwhile and profitable for the man who sells the Pickard line.

A price and style for every demand. Write us for literature.



PICKARD TRUNKS

On A Trunk Means Quality

PICKARD TRUNK CO. Inc., LIVONIA, N.Y. Formerly Dansville Trunk Corp.

MOTOR AGE

VOLUME LIII

Philadelphia, Pa., March 8, 1928

NUMBER 10

Assembling Plants Abroad Increasing

Many U. S. Makers Now
Have Branch Factories in
Overseas Cities

UNIT SALES GAINING

WASHINGTON, March 6—A survey showing the trend of American automobile manufacturers for having assembly plants abroad, has just been completed by the U. S. department of commerce. It shows that from six assembly plants in 1923, American manufacturers during the last five years, have increased to 29 such foreign branches. On a production basis, the figures show that during the past five years the increase has amounted to 161 per cent in unit sales.

During 1927, these 29 foreign assembly plants produced a total of 198,500 passenger cars, trucks and chassis, an increase of 34 per cent, or 50,342 units over the 1926 production. Most of these branch plants, the department finds, are located in important automotive vehicle distributing centers, the location being partly governed by transportation, labor, material supply, free ports and tariff facilities. The locations of the 29 foreign assembly plants are as follows: Three in England, five in Germany, two in Copenhagen, two in Antwerp, one in France, one in Cork, one in Barcelona, two in Port Elizabeth, one in Batavia, one in Wellington, two in Australia, near Melbourne, two in Japan, two in Buenos Aires, two in Sao Paulo, one in Mexico and one in Uruguay.

A. L. Frank, of Studebaker Export Sales, to Go Abroad

SOUTH BEND, IND., March 7—A. L. Frank, assistant manager of export sales of the Studebaker Corp. of America, will sail March 9 from New York for Liverpool on the S. S. Majestic.

Mr. Frank will spend some time with Studebaker-Erskine distributors in England before going on to various points on the continent. His trip will consume about six weeks' time.

Extra Mileage

WASHINGTON, March 7—A new use for old automobile tires has been found in Mexico and Greece, according to reports to the U. S. Department of Commerce. In these countries the peasants last year used approximately 100,000 old tires which were cut up and manufactured into a sort of sandal, that, retailing at a small figure, is becoming very popular with the poorer classes in those countries.

Packard Co. Offers Lower Price Line

DETROIT, March 7—A lower priced line of body models on the eight-cylinder chassis is being offered by the Packard Motor Car Co. The line, called the new Standard Eight, ranges in price from \$3,450 to \$3,850 and is offered in addition to the former eight-cylinder line with its custom bodies. Advance information of the addition of these lines was given to distributors about March 1, and resulting orders necessitated doubling the originally intended production schedule.

Packard is also expanding its plant through the addition of two new buildings and the purchase of machinery.

Prices of the line are as follows:

7-pass. touring	\$3,550
2-pass. coupe	3,550
5-pass. phaeton	3,650
4-pass. conv. coupe	3,650
4-pass. coupe	3,750
5-pass. club sedan	3,750
7-pass. sedan	3,750
7-pass. sedan limousine	3,850

Russel Erskine Honored

HUNTSVILLE, ALA., March 8—A new 12-story hotel soon to be erected has been named the Russel Erskine by citizens of that town in honor of Albert Russel Erskine, president of the Studebaker Corp. Huntsville is Mr. Erskine's birthplace.

Car Makers Seek Ban on Toll Roads

Commerce Chamber Adopts
Resolution; Asks Free
Use of Highway

URGE PUBLIC CONTROL

NEW YORK, March 5—Opposition to toll roads and limitation of toll bridges is being urged by the National Automobile Chamber of Commerce in its presentations to congress. Tolls on the highways are against public policy, and toll bridges are justifiable only when returnable to the public within a short time and operated at reasonable cost, according to H. H. Rice, chairman of the Tax Committee, in a letter to Congressman Robert H. Clancy.

The following resolutions were recently adopted by the directors of the N.A.C.C. in connection with the policy of highway tolls:

"The free use of the public highway is a fundamental principle of government. Motor vehicle owners of the United States through special taxes are today largely meeting the costs of the construction of these highways.

"So-called express highways are simply a step in the further improvement of our public highway system which will be found necessary in those localities where traffic is heavy.

"The National Automobile Chamber of Commerce, therefore, opposes any effort to place control of any part of the public highways in the hands of private promoters, and this body emphatically supports the principle that the public highways shall be forever kept free to the general public."

Du Bois of Craveroiler Placing Territorial Men

PHILADELPHIA, March 7—Harold Du Bois, new sales manager of the Craveroiler Co. of America, is on the job with his sleeves rolled up. He has appointed several new distributors and is engaged in placing territorial men throughout the country. He brought to his new post a well-rounded experience in the automotive field.

Schweikle Moved Up by Oldsmobile

Veteran of Industry Advanced to Important Position by Stambaugh

DETROIT, March 3—Thomas H. Stambaugh, general service manager of the Olds Motor Works, announces the appointment of Walter A. Schweikle as service promotion manager for Oldsmobile. Mr. Schweikle has been associated with the Oldsmobile service department for the past two years, working in connection with Mr. Stambaugh.

Mr. Schweikle has a background extending back to the transition days when the bicycle was going and the automobile coming. When a youth he started with the National Cycle Works at Bay City, assisted in making the National bicycle and also made engine parts at the same plant for the early Packard automobile. Later he was with Buick at Flint when that company started making its first gear shift cars and worked in the machine shops of Dodge Brothers when they made the six-cylinder engine for Ford before the old Model T was introduced. His first service experiences were with the Regal, Warren-Detroit, Cadillac and Paige-Detroit companies.

Following a year in government service as inspector of aviation trucks and trailers, Mr. Schweikle was service man for the Lalley Light Corp. and later in charge of service stations in Detroit and San Pedro, California.

Bohn Sales Increase

DETROIT, March 8—Bohn Aluminum & Brass Co. has declared a regular quarterly dividend of 37½ cents on the

Moves Up



Walter A. Schweikle

MEET the new service promotion manager of Olds Motor Works

capital stock, payable April 1 to stock March 15. The company reports that so far sales for the current year are 30 per cent ahead of the corresponding period last year. A 50 per cent increase production is looked for this year which will give a total of 15,000,000 Nelson Bohnalite aluminum pistons for 1928, 10,000,000 having been manufactured in 1927. The company states that 85 per cent of American automobiles now use this type of piston, as compared with the beginning of 1927, when only about 27 per cent used this type.

The company has a net profit for 1927 of \$1,181,606 after all charges and taxes, which is an appreciable gain over the previous year when the net was \$873,744. The factory now has a capacity of 1,500,000 a month.

Peerless Beats February Mark

Produces and Ships Most Cars; March Output to be Greatest

CLEVELAND, March 1—Officials of the Peerless Motor Car Corp. report that more cars were manufactured and shipped during February than in any other February in Peerless history. It was also said that unfilled orders still on hand are larger now than at the close of the New York show, which is a high peak for most manufacturers. The plant is humming with activity as the company's biggest monthly production schedule is started.

"Peerless is realizing on the huge investment in the fine manufacturing facilities that have been built up during the 27 years that the company has been manufacturing automobiles," said Leon R. German, vice-president and general manager.

"When January and February are combined and compared to the same months of previous year, it is apparent that this year will be a record-breaker. In March, we will build more Peerless cars than have ever been built in one month before, and according to the plans we have made for April, that month will be even larger than March from a production standpoint."

Bigler Visits Middle West

CHIPPEWA FALLS, WIS., March 6—F. A. Bigler, president and general manager of the Bigler Mfg. Co., manufacturer of Bigler Prestite trunks, has just completed a trip through the Middle West. He reports that dealers are equipping cars on the floor and thus increasing their profits per unit.

+ + + + + Pink Tights Don't Make an Acrobat + + + + +

NOR iron bars a bank, as some poet should have said. The point of this artful introduction is that more is required of a trapeze artist than that he encase his bulging muscles in a nifty skin-fitting garment, and of a bank something to bring customers in as well as keep yeggmen out. And thus gradually, we come to the point of a feature article in next week's MOTOR AGE, which is to the effect that "Pink Lights Won't Make a Service Station." In it a man of experience recounts the process of choosing an appropriate site.

In England it is quite an honor to become a member of Parliament. So, if an Englishman preferred to be an American automobile salesman, wouldn't his views on salesmanship be worth reading? We figured they would. So we arranged for a story about Jack McIntyre (winner of a national sales contest to boot) which you will find in the March 15 number under the title "He'd Rather Be a Salesman Than an M.P." You'll agree with us that the esteemed gentleman not only knows his bloomin' tomahtoes but 'is happles has well.

Among other features you'll find that "Selling Service is a Telling Service" and "Business for Profit" are both interesting and beneficial.

Grahams Advance Valpey and Heilman

Successors to Krohn and Gaunt
Long Identified With
Industry

DETROIT, March 3—F. R. Valpey has been appointed general sales manager of the Graham-Paige Motors Corp., succeeding Henry Krohn, who announced his resignation several days ago. The company also announces the appointment of W. R. Heilman as assistant sales manager, succeeding G. B. Gaunt, who also resigned March 1.

Mr. Valpey's experience in the automotive field dates back to 1914. He is a native of Detroit, where he was educated and gained his earliest sales training with the National Cash Register Co.

In 1914 he joined the Willys-Overland Co. as factory representative of New York, in which position he remained until 1917. Later, for two years, he was a partner in the Franklin New York Co., distributor for the Franklin car. He first became associated with Graham Brothers as a distributor and then as branch manager in New York during the early development of their truck business. November, 1924, to April, 1926, Mr. Valpey was director of districts and later sales manager for Graham Brothers and from then until July, 1927, was assistant general sales manager for Dodge Brothers, Inc. When the three Graham Brothers acquired the Paige-Detroit Motor Car Co., Mr. Valpey joined R. C. Graham and has served as assistant to the vice-president up to his appointment as general sales manager of the Graham-Paige Corp.

Mr. Heilman served with Graham Brothers as district representative on the coast and as assistant to Robert C. Graham. He was also southern division sales manager for Dodge Brothers, Inc., and became director of commercial car and truck sales for that company in January, 1926. When the Grahams acquired the Paige-Detroit Co., Mr. Heilman was appointed manager of the branch at Dallas, and later returned to Detroit to take up general sales work at the factory.

Ten-Page Supplement

HUNTINGTON, W. VA., March 6—In celebration of the tenth anniversary and the opening of the new home of Bruce Perry Motor Co., the Huntington Advertiser issued a 10-page supplement, which it called the Bruce Perry Section.

With Jordan



Edward VerLinden
FORMER Peerless president,
who returns to Cleveland to join
Jordan

Edward VerLinden Goes With Jordan

Former GM, Durant, Peerless
Executive Takes Over
Important Post

CLEVELAND, March 5—Edward VerLinden, who resigned as president and general manager of the Peerless Motor Car Corp. two months ago, returned to Cleveland today as director and chairman of the executive committee of the Jordan Motor Car Co. In announcing this news to the trade and the public, E. S. Jordan, president of the company, stressed the advantages which will accrue to the company in its present expansion program through Mr. VerLinden's long experience as a manufacturer.

Edward VerLinden's career as an automotive executive began back in 1906, when he organized the Michigan Auto Parts Co. to manufacture parts for the automobile industry. In 1910 this company was absorbed by the General Motors Corp. Mr. VerLinden then went to the Buick Motor Co. as master mechanic. He soon became manager of the Buick factory at Flint.

In 1912 he became works manager of the Olds Motor Works, at Lansing. Four years later he was appointed president and general manager of Olds, at the same time being elected vice-president and director of General Motors Corp. His management of Olds for five years stands out as one of the most successful and most prosperous periods in the history of that pioneer company.

He resigned from Olds and General Motors in 1921 to become president of Durant Motors of Michigan. He built the big Durant plant at Lansing. After two years, he discontinued his Durant connection and took his family abroad for the first real vacation he ever had.

In February, 1925, he was elected president and general manager of the Peerless Motor Car Corp., resigning that post in January of this year and leaving the company in a strong financial position.

Stayart Heads Branch

NORWALK, OHIO, March 5—The Norwalk Auto Parts Co. has opened general sales office in the Real Estate Trust Building, Philadelphia, in charge of I. L. Stayart, as general sales manager. The company manufactures the Linendoll brake testing equipment.

In his new connection, Mr. Stayart reenters the automotive business after an absence of four years.

Earl Cooper Joins Marmon Company

INDIANAPOLIS, March 7—Turning from the fascinating atmosphere of the race track to the more practical occupation of experimental engineer, Earl Cooper, a leading figure in automobile racing for nearly a quarter of a century, is now a member of the experimental engineering staff at the factory of the Marmon Motor Car Co. Like many of his fellow-drivers of years gone by, Cooper is utilizing the experience and knowledge gained on the race courses of two continents.

Iler Adds to Sales Force

CLEVELAND, March 7—E. A. Joyce has been appointed director of sales of the Iler Electrical Mfg. Co., maker of Ilerlite. Until recently he was associated with James A. Garfield as director of sales of the Duro-Seal Corp. He has occupied executive positions in the automotive industry during the past 10 years.

June M. Millard, formerly with the Metal Stamping Co. of Long Island, the Bailey-Drake Co. and the Duro-Seal Corp., has joined the Iler sales force as manager of the western sales division, June sold automotive accessories at a time when some of his customers were still doing a thriving business in buggy whips.

H. G. Kroesen has been appointed a special representative on the Iler sales force.

J. V. Schooneveldt, of The Hague, will demonstrate the wig-wagging Ilerlite to the automotive trade in Holland.

Broadway Crowd Controls Display

Finger Placed on Key Painted on Window Stops or Starts Car

NEW YORK, March 5—An added attraction of the Willys-Knight Standard Six Salon being staged at the Willys-Overland branch this week to commemorate the formal introduction of the lowest priced Willys-Knight car, is one of the new sedan models mounted on a revolving turntable in the showroom which may be set in motion and controlled at the will of the spectators from the street.

By means of one of the newest radio inventions, the Knowles Grid-Gloe Tube, passers-by simply place their finger on an automobile key painted on the window to stop and start the revolving Willys-Knight Standard Six sedan.

There is no electrical or mechanical connection to the window key, the finger pressure on the window glass being sufficient to operate the highly sensitive radio tube which through a relay switch controls the large turntable.

Simultaneously with the starting of the car by the outside spectators, the interior and exterior lights of the car are illuminated while with the stopping of the car switches the lights off automatically. Varicolored lights and rich drapes set this display to a pleasing advantage.

Veterans along automobile row acclaim this demonstration as one of the most interesting window attractions ever staged along the Great White Way. The display furthermore exemplifies the remarkable progress that is being made in the development of remote control radio appliances. The tube is the invention of A. G. Knowles, a research engineer.

Close Merchandising Head of King Quality Products

INDIANAPOLIS, March 6—B. G. Close has been named vice-president and merchandising manager of the King Quality Products Co., recently acquired by the McQuay-Norris Mfg. Co. and moved to this city. Mr. Close has been vice-president of the company in Buffalo for some time.

Orlando J. Root

MOLINE, ILL., March 2—Orlando J. Root, one of the pioneers in American automotive industrial circles, associated

Advanced



Sam V. Harding

AFTER eight years with Marmon in a sales position, Mr. Harding has been appointed regional manager for the Northwest and Central West territory. You probably saw the announcement in MOTOR AGE a couple of weeks ago. For the last three years Mr. Harding has been general manager of the Indianapolis sales branch of the Marmon company, and prior to that time he was a special sales representative of the factory.

Coincident with the announcement of Mr. Harding's appointment to the Chicago headquarters is the announcement that Jack Hendricks has been named to succeed him as general manager of the Indianapolis branch.

with the Root & VanderVoort company, makers of the R & V Knight and during the war munitions contractors, died Feb. 16 in his home. He was 58 years old.

Chevrolet to Have Big Terminal in Cleveland

CLEVELAND, March 7—Establishment of a large Chevrolet distribution terminal in Cleveland by General Motors is planned for the near future, it became known today.

A large building with facilities to serve the entire Cleveland zone, extending west to Toledo, east to the Pennsylvania line and south to Mansfield, will be erected. The building will include a warehouse.

May Not Violate Credit Lien on Car

U. S. Supreme Court Decision Protects Commercial Paper

WASHINGTON, March 3—A decision of importance to the automobile dealers and affiliated credit corporations handling automobile paper, was rendered this week by the U. S. supreme court in the case of the Commercial Credit Company vs. the United States No. 258, and which went to the highest court from Washington state. In substance, the decision holds that a commercial credit company's lien may not be violated by the Federal prohibition department, under Section 3450 of the revised statutes.

This statute provides that automobiles used in the transportation of liquor on which the tax has not been paid, may be libeled and sold by the government. Under previous decisions, by state and circuit courts, the courts have uniformly held that if an automobile is seized and found to contain liquors on which the revenue tax has not been paid, the government has a right to sell the car, irrespective of the vendor's lien. The court's decision will mean that in cases arising in a state where the vendor retains a lien, that this lien may not be destroyed under the provisions of section 3450 of the revised statutes.

The case has attracted widespread attention.

Roller Bearings Used on Fleet of Electric Cars

MILWAUKEE, March 8—The first application of roller bearings to street car axles, following the successful use of this type in railroad coaches, is found in a fleet of eight new one-man safety street cars recently placed in service by the Chicago, North Shore & Milwaukee electric for Milwaukee city service. Two of the eight cars are fitted with roller bearings as an experiment, and the others will be so equipped later, the company states.

Briggs Earnings Off

DETROIT, March 5—For the year ended Dec. 31, the Briggs Mfg. Co. reports a net profit of \$1,155,729, equal to 57 cents a share on 2,003,225 shares of no par capital stock. This compares with net profit of \$8,178,512, or \$4.08 a share in 1926. The balance sheet shows the company's net working capital to be \$9,298,190.

Moon Adds Many New Distributors

Signs 12 Wholesalers and 42 Dealers Since National Auto Shows

ST. LOUIS, March 5—The introduction of the new Moon Aerotype 8-80 line at the recent national automobile shows in New York and Chicago and its enthusiastic reception at these and other shows about the country, has drawn to the Moon organization a large number of distributors and dealers. Since the opening date of the New York Show, January 7, 1928, twelve distributors have signed contracts to handle the Moon line. In this same period forty-two dealers have taken on the Moon line.

The new contracts for distributing territories were entered into by representative organizations in widely separated principal cities, the most important of which are Philadelphia, Minneapolis, San Francisco, Memphis, Cleveland, Little Rock and Miami, Florida.

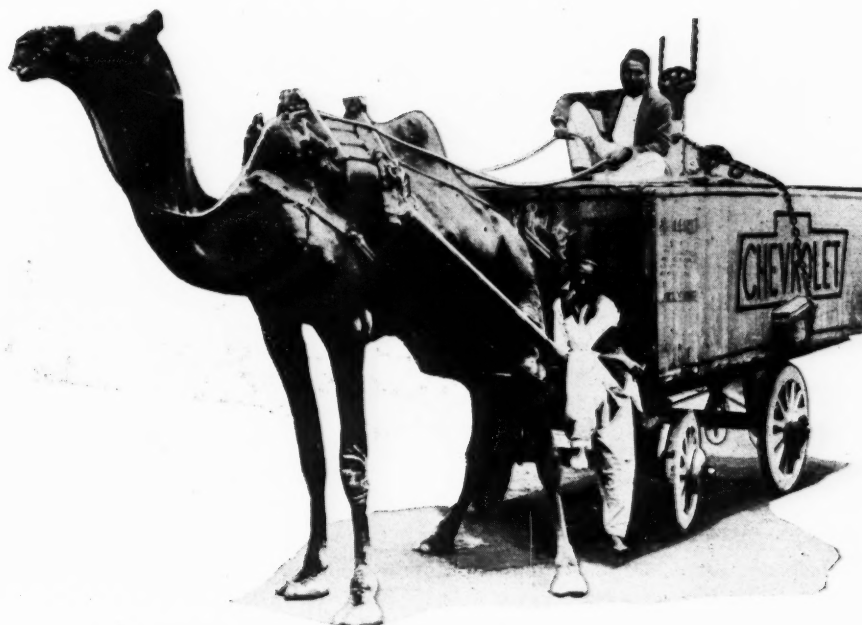
According to factory officials, this unusual increase in the number of distributors and dealers for so short a period may be attributed to the entirely new line of Moon Aerotype eights and to the recently announced Moon 6-72 line. Both of these new cars represent the newest trend in design and mechanical improvements which includes artistic Franco-Italian coachwork and a number of airplane features, chief among which is a duplex carburetor. These entirely new improvements coupled with the financial position of the company as recently revealed in its statement, has attracted a large number of representative distributors and dealers to the Moon franchise.

Ownership Certificate Plan for N. Y. Attacked

NEW YORK, March 6—Proposed legislation pending in Albany, which would require an individual desiring to sell a used car to obtain a certificate of ownership from the state license commissioner, was recently attacked by the Classified Advertising Managers Association of New York on the ground that it was discriminatory.

Timken Net Six Million

CANTON, OHIO, March 7—Annual report of the Timken Roller Bearing Co., shows net profits from sales of \$9,554,397 and total dividends paid during the year \$6,004,411. H. H. Timken,



Camel, Walking a Mile

OLD SHUFFLEFOOT, the prairie schooner of the Sahara—or something equally poetical—wears what he calls a smile; he's glad that he and his kind will soon be displaced by the automobile. After that, no more eight days without a drink for him. This picture was taken in Karachi, India

president, told stockholders a good year is in prospect with the increased use of roller bearings in railway cars. A \$4,000,000 plant addition now under way will increase capacities of the electric and open hearth steel divisions.

Williams of Marmon on Business Trip to Coast

SAN FRANCISCO, March 3—G. H. Williams, president of the Marmon Motor Car Co., accompanied by Howard Marmon and H. L. Purdy, vice-presidents, and Carl Sherer, treasurer, are spending a week in this city as the guests of Butler-Veitch, Inc., the northern California distributing organization for Marmon. The annual Marmon merchandising meeting of dealers from all parts of California will be held during Mr. Williams' visit.

Herbert F. Johnson

RACINE, WIS., March 2—Herbert F. Johnson, head of S. C. Johnson & Sons Co., internationally known manufacturer of automobile finishes, waxes, polishes, etc., died recently of heart disease. He was 60 years of age and a native of Racine, where his father established a factory that now has branches for manufacturing as well as sales in Canada, England and Australia.

Mr. Johnson was one of the most prominent men in Racine.

Seward Asst. to White Vice-Pres.

Continues as Ad. Department Head in Addition to New Duties

CLEVELAND, March 7—Stanley P. Seward, advertising manager of the White Co. since 1923, has been appointed assistant to Saunders Jones, vice-president, effective according to announcement made today by President Walter C. White. Mr. Seward will continue his direction of the advertising department.

Mr. Seward joined the White Co. more than 12 years ago, and has been continuously in the service of the company since then except during the war. He started in the advertising department and later became manager of the sales promotion department. He was a salesman for some time, working on national accounts.

Holtsinger Joins Durant

ELIZABETH, N. J., March 3—G. M. Holtsinger, ex-president of the Tampa Automobile Dealers' Association, who has had the Star and Nash franchise in Tampa, Florida, has been appointed representative of Durant Motors, Inc. He has assumed his new duties.



A Buick for the Governor

RESIDENTS of Knox County, the home of Governor F. D. Sampson of Kentucky, presented him with this specially-equipped Buick sedan upon the occasion of his recent inauguration. At the left is O. R. Harrod, of the Frankfort Buick Co., beside Warner Sayers, sales manager of the Leyman Buick Co., Cincinnati. At the right are Daniel Boone Smith, "baby" member of Kentucky's House of Representatives, who made the presentation in behalf of Knox County residents, and Governor Sampson.

Exports Will Gain Only as Do Imports

Buy From Foreign Markets if We Want to Sell to Them, Mooney Says

NEW YORK, March 5—"Throughout the world there is a growing feeling that the United States cannot expect to export its products in ever increasing quantities without in turn buying the products of other countries in larger amounts," said J. D. Mooney, president of the General Motors export division of the General Motors Corp., who recently returned on the S. S. "Olympic" from Europe, where he inspected General Motors operations.

"Most countries recognize that tariffs are regulated by the revenue and other economic needs of individual nations," said Mr. Mooney. Everyone knows that the United States will not transfer to any other authority the direction of American tariff policy. But throughout the world there is the feeling that the United States must also buy goods from other nations in larger quantities if it expects its own export business to keep on growing.

Exports Gain 95 Per Cent

"Since 1914 Europe has had a gain of 29 per cent in export trade while the United States has had a gain of 95 per cent. It is interesting to know that Australia gained 108 per cent and

Asia 155 per cent. Europe is naturally concerned that other parts of the world should be making such great forward strides."

Mr. Mooney reported that the General Motors export division is operating in 104 countries and in 1927 did a business of \$180,014,700 as compared with \$107,387,300 in 1926. In 1926, 118,791 cars were sold by General Motors in the overseas markets and in 1927, 193,830, Mr. Mooney reported.

Garagemen Form Ass'n

SALT LAKE CITY, March 7—The latest Utah organization of the automotive industry is the Utah State Garage Association, which will be devoted exclusively to the interests of garagemen with establishments able to take care of 15 cars or more. The association, already organized nearly 100 per cent, was formed this week at a meeting in the Chamber of Commerce where a talk was made by George Jay Martin, head of the Social Hall Garage, Salt Lake City, who discussed the benefits of an association having for its sole object the interests of the garagemen and the elevation of their business to a higher plane.

Officers elected are: President, George Jay Martin, Social Hall Garage; vice-president, Melvin R. Ballard, president of the Utah State Automobile Association and vice-president and general manager of the Covey-Ballard Motor Co.; Treasurer, Will Brown, Salt Lake Transportation Co. Future plans will soon be announced.

Ford Now Makes 1200 Units Daily

Officials Announce All Plants Will Soon Be Operating At Capacity

DETROIT, March 2—Officials of the Ford Motor Co. announced today that production of Model A has reached 1200 units daily and asserted that Ford cars will soon be available to the public on the full manufacturing schedule. All mechanical details of the car were definitely decided upon before Henry Ford's recent departure for Florida.

The only change the officials admit that has been made since the car was originally shown is the addition of the emergency brake, which will soon be in production.

Last week assembly plants were opened in Chicago, San Francisco, Kansas City, Louisville, Kearny, N. J., and Norfolk. Plants at Seattle, St. Louis and Chester, Pa., are opening this week, and next week assembly operations will be inaugurated at Dallas, Minneapolis and Somerville, Mass.

Truck Makers Merge

NEW YORK, March 7—Brockway Motor Truck Corp., Cortland, N. Y., and the Indiana Truck Co., Marion, Ind., will be merged into a single company retaining the Brockway name, it has been announced by George A. Brockway, president of the former company, who also heads the merger.

Combined assets of the two companies exceeded \$9,000,000 and total sales are in excess of \$15,000,000.



WE mean the whole gang. Our
tives, engineers, salesmen, comptrollers
Harry Wetherald, Charles Worshing,
A. G. Bishop, J. E. Grimm, Jr., C. E.
Coyle, E. R. Palmer, Unidentified, C.

They
Identifier is
and what h
Marshall, C
Wetherald,
R. Scharff,
E. Holler,

Urge Adoption of Flynn Bus Report

Railroads' Brief Cites Serious Conditions as Result of Competition

WASHINGTON, March 3—Adoption of the Flynn motor bus and truck report by the Interstate Commerce Commission was urged this week in a brief filed with the commission by the Pennsylvania Railroad, the Reading Railroad and subsidiaries. The competition of motor buses with these two lines between Philadelphia and New Jersey points, and between New Jersey points and New York, has created a serious condition for the railroads, the brief points out.

Urging that Federal regulation, providing for regulation of interstate buses, is immediately necessary, the railroads ask that the report be adopted and that the I. C. C. be authorized to determine the preliminary question of public necessity for operation of interstate buses. The report of the commission is not looked for during the present session of congress, although briefs and arguments on the report were heard early this month. The investigation in connection with motor bus and truck operation has been under way by the commission for over two years.

Has New Catalog

CHICAGO, March 3—C. E. Niehoff & Co., 230 W. Superior St., Chicago, has just announced a new catalog. This catalog, unusually attractive, contains

many excellent merchandising ideas.

The company states that a copy of this catalog will be sent to any whose inquiries are received on a business letter head.

Vice-President



E. H. McCarty

WE told you in last week's MOTOR AGE that E. H. McCarty, for the past six years general sales manager of Nash Motors Co., has been named vice-president of the organization. Here's his picture and we're sorry we couldn't have had it sooner. Mr. McCarty will continue to direct the sales activities in addition to his new responsibilities.

Divco-Detroit Co. Managers Meet

Nicol, Newly Appointed Vice-President, Outlines Future Plans

DETROIT, March 3—A sales conference attended by the 13 district managers for the Divco-Detroit Corp. has just been concluded at the factory in Detroit. The sessions were presided over by John Nicol, newly appointed vice-president of the corporation in complete charge of operations. Mr. Nicol comes to Divco from General Motors Truck Co., having been branch manager for the past four years at Chicago and Minneapolis. He has been in the truck business since 1915.

In commenting on Divco's future sales plans, Mr. Nicol told Chilton Class Journal Co. that the corporation will divide the country up into 10 zones and will establish district offices at strategic points. Cities where offices will be maintained follow: New York, Boston, Philadelphia, Pittsburgh, Buffalo, Cleveland, Detroit, Chicago, St. Louis, Denver, Fort Worth and San Francisco. He also stated that the Divco organization is working out a new service and sales policy particularly devoted to their product.

Odell Advanced by Hutto

DETROIT, March 3—O. G. Odell, of the sales staff of Hutto Engineering Co., Inc., has been placed in charge of sales for the States of Ohio, Indiana and the lower peninsula of Michigan.



They Helped Chevrolet Dedicate the New Plant

Identifier is having a flat rate operation on its carbon and valves and it's a man-sized job to identify these Chevrolet executives and what have you without it. But we'll try—from memory, too, just to show you what we can do. Left to right, of course: Marshall, C. L. Garner, Ed. W. Ivy, B. C. Barnett, Parr, Sly, E. C. Shaw, George Herrick, B. G. Koether, W. E. Lawrence, Wetherald, Bill Knotman, O. E. Hunt, B. J. Swanson, W. S. Kundsén, C. F. Barth, Gray, R. H. Grant, J. C. Chick, M. E. R. Scharff, Roy Cramm, A. H. Goodman, Fred. Gayton, D. P. O'Keefe, Unidentified, McHale, W. C. Williams, Jr., W. E. Holler, McGregor, Ben. Waderlow, L. I. Stewart

Saving in Tires Justifies Paving

Rubber Worth Thousands is
Worn Away Per Mile of
Road Yearly

By E. E. Duffy

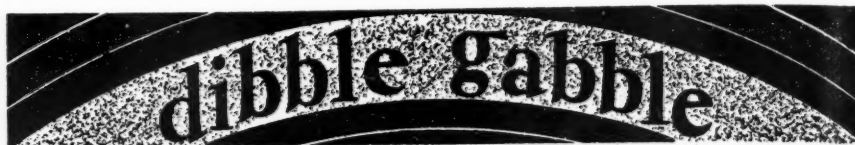
NEW YORK, March 5—No less than \$1,918 yearly may be saved on tires for each mile of high type pavement that replaces the old-fashioned gravel or dirt road, according to the last service bulletin of the Iowa Highway Commission, which takes as a basis the recent investigations of Washington state college. This means that where automobile traffic is heavy, the saving in the tire wear alone justifies paving.

Tread rubber on the average tire costs about \$10 per pound. The amount of rubber worn off during the life of the tire is about 3.45 pounds. It was found that on a good crushed stone surface with 500 vehicles traveling over it daily the tire wear cost in the course of a year is \$2,590 per mile. The cost on rigid pavements with the same number of vehicles is only \$672.

The state college has found that a properly constructed concrete pavement may be expected to give service for at least 25 years. Spreading the entire cost of the pavement over this period, the average cost per year is \$1,840. This figure is actually \$78 per year less than the saving in tire wear effected through driving on the rigid pavement.

Matheson Joins Chrysler

DETROIT, March 8—Charles W. Matheson has resigned as vice-president and director of sales of the Kelvinator corporation to fill a newly created executive position with the Chrysler corporation, it is announced by J. E. Fields, vice-president in charge of sales of Chrysler. Mr. Matheson, a pioneer in the industry, was originally a manufacturer. He then became Eastern director of sales for Dodge Brothers, later coming to the factory, where he became sales manager and then vice-president in charge of sales of Dodge Brothers. Retiring from Dodge Brothers he was made assistant to the president of General Motors where he did special merchandising, analytical and plan work, after which he was named vice-president and general sales manager of the Oakland Motor Car Co. Upon his retirement from Oakland he entered the electric refrigeration field, remaining until his new connection with Chrysler.



By Lewis C. Dibble

THEY just can't keep R. H. (Trainload) Collins out of the automotive picture. H. M. Stevens tells us that he has named the former president of Cadillac and Peerless as distributor for Cadillac-LaSalle in Oregon, with headquarters at Portland. Incidentally Mr. Collins gained his moniker of "Trainload" during his days as sales manager of Buick where he electrified the industry with his trainload shipments of Buicks to all parts of the country.

PROBABLY one of the most important announcements of the week was that of the Kent-Moore organization to the effect that they will expand their line of flat rate tools and shop equipment for servicing all makes of passenger and commercial motor vehicles. Heretofore they have specialized on several distinct makes.

NO doubt when the Hutto Engineering Co. placed C. G. Odell in direct charge of sales in Ohio, Indiana and the Lower Peninsula of Michigan they had an idea of grinding out a lot of new business in this vast territory.

NOW that Edward VerLinden has joined hands with Edward Jordan the pretty gal who acts as courtesy secretary in the Jordan lobby is going to have a husky job. Every time a caller asks to see Ed. she'll have to inquire which Ed. they want to see. This new combination of Edwards, incidentally, looks like a mighty refreshing team and should prove a great stimulus to the Jordan organization.

IT begins to look as if automobile statisticians will be subject to writer's cramp if they attempt to record and analyze all the production records which have been hung up in rapid fire succession so far in '28.

HERE'S a hot sketch," declared Maurice Gotthelf of AC Spark Plug Co. as he perused the financial section of a newspaper. "Ice Merger Planned" was what Maurice read, to which he added with his laconic wit "No doubt it'll submerge when the spring sun hits it."

GOOD news comes in from H. G. Hersh, of Auburn. The company's production, he says, is at peak with output totaling nearly 700 cars a week. He also asserts that from four to six weeks will be required to fill the orders already on the books.

OUR old side-kick Dave Preston is tooling up for a big year. Dave has resigned from the sales division of Chilton Class Journal Co. to become assistant sales manager of the Excello Tool & Manufacturing Co. Instead of three cheers it might be suitable to salute Dave thusly: "Excello! Excello! EXCELLO!"

BACK in the days when the boys were cutting didos on their bicycles, Walt Schweikle was doing his stuff in a service way with bicycle manufacturers. Then he fell for the lure of the horseless carriage and for years has been associated with a number of automobile companies. Now we learn that Walt has been appointed to assist his excellency, Tom Stambaugh, service manager of Oldsmobile. Walt will carry the title of service promotion manager.

LOOKS like the latest style in civic monuments to big men in the automotive industry is to name a hotel after them. Out in Huntsville, Alabama, the citizens are going to build a fine new hotel and name it the Albert Erskine in honor of Albert Russel Erskine, a native son. A few years ago the citizens of Flint built a similar monument to W. C. Durant and likewise The Olds, in Lansing, is a tribute to R. E. Olds.—P. S.: The Book Cadillac Hotel and the Cadillac car are both named after the adventurous gentlemen who founded the City of the Straits.

She Knows Automobiles

ENJOY meeting people. Know your product. Be of service. It is more than likely that Miss Edna W. Schuller has patterned her 21 years of life on these maxims, for the substance of the statements have in no small way contributed to her success as assistant manager of the A. D. Schuller Motor Sales Co., Chicago.

Miss Schuller is the daughter of A. D. Schuller, who has salesrooms at 3324 Montrose Ave., and at 4049 Fullerton Ave., Chicago. He is also interested in real estate.

While Miss Schuller was attending high school and the University of Illinois she frequently assisted her father in his realty transactions. On her graduation last June with a B.A. degree she decided to learn the automobile business. First she took charge of the books and accounting, with an occasional flyer into selling and early this year was made assistant manager of the Montrose Ave. store. It was a promotion predicted on past performance and ability to produce in the future.

Miss Schuller finds her youth and sex no barrier in selling Oldsmobiles. She has studied her work thoroughly and can discuss motor cars intelligently.



Gates Co. to Open New Power Plant March 15

DENVER, COL., March 7—The \$300,000 power plant of the Gates Rubber Co., now in course of completion, will be in full operation March 15, according to Carl Ahlquist, the company's chief engineer, who is in charge of construction.

This power unit will generate the 10,000,000 K. W. consumed annually with a comfortable surplus capacity for expansion. Incidentally, this \$300,000 plant will generate 170,000,000 pounds of steam for use in rubber manufacturing processes, supply hydraulic for presses, and compressed air wherever required.

AWOL Car Returns With Wash, Polish and New Oil

J. W. Fehman, MOTOR AGE correspondent in Columbus, Ohio, tells the following story: E. L. Gallagher, proprietor of a printing plant in Wordsfield, Ohio, is willing to have his automobile A.W.O.L. at least once a week. Recently he reported his car as taken from its parking space. A description of the car was telephoned to all nearby towns and the police waited for results. A short time later the car was returned by a neighbor who reported

he had taken the car by mistake for his own and did not discover his error until he had the car washed, polished, oiled and greased at his own expense.

Townsend Looks for Good Accessory Business in '28

LONG ISLAND CITY, March 3—George H. Townsend, president of The Moto Meter Co., Inc., upon his return from an extended trip through the South, states that there is every indication of a great improvement in the accessory business, from the standpoint of the manufacturer.

He believes, however, that competition in all branches of the industry will be keen, and profit margins probably smaller than in previous years.

The fact that Henry Ford is now increasing his production daily has been a help to the business of The Moto Meter Co., particularly since the Ford dealers have been very enthusiastic in their praise of the new Junior Model Boyce Moto Meter, for this car.

Reynolds Spring Shows Loss

DETROIT, March 6—The Reynolds Spring Co. reports a net loss of \$162,369 for 1927, compared with a net loss of \$164,038 in 1926.

Speed With Safety Is Not Impossible

Time to Look at Problem From New Angle, Hoffman Says

SOUTH BEND, IND., March 7—The time has come to stop sidestepping the problem of speed on the highways, is the opinion of Paul G. Hoffman, vice-president of the Studebaker Corp. of America.

"American railroads have proved that it is possible to attain both high speed and safety. When we look back over the years we view with amusement the excitement that greeted the iron monsters of 1848 as they thundered over the rails at the fearful speed of 25 miles an hour.

"It is foolish to put legislative bars of a fixed character in the way of development of speed in motor car transportation. It is time to look at the problem of highway safety from a new point of view. One of the first steps is to get over the idea that speed in itself is a dangerous thing. It is not speed alone, but speed in combination with other factors that makes accidents. Any well constructed car of the present year is much safer at 50 miles an hour under the proper conditions than cars of a similar class were 15 years ago at 30 miles an hour.

"No one can deny that there is real danger in speed plus unfavorable conditions for speed on the highway, but speed in itself does not necessarily create hazards. High speed at intersections, in turning corners, passing pedestrians or passing other traffic in the face of oncoming traffic from the other direction is a real menace.

"Legislation and enforcement should concern itself not so much with speed as with those acts of a driver which, combined with speed, result in accidents. Let us stop arresting the sane motorist who is doing a sensible 45 miles an hour on a fast road in the open country, and concentrate on drivers like the short-corner-cutter in town who may be doing only 15."

Kilbourne a Distributor for Stearns-Knight Line

SPRINGFIELD, MASS., March 3—C. R. Kilbourne has been appointed distributor of Stearns-Knight for Hampden, Hampshire and Berkshire counties, and has opened an office and salesroom at 21 Pearl St.

He formerly was a factory representative for Willys-Knight.

Illinois Tax Win May Cause Suits

Supreme Court Decision Holds
Assessment Violates
4th Amendment

CHICAGO, March 7—Illinois motorists and industries, in winning their fight against the state gasoline tax of two cents per gallon, have set a precedent which is expected may be the foundation of suits in several of the remaining 46 states which have gasoline taxes.

Perusal of the decision, which characterizes the law as "an unintelligible piece of legislation," shows that the supreme court's decision was founded on the following six points:

1. It was held that the title was misleading, in that it failed to state that the tax was upon users of highways and not upon gasoline;
2. It was held a violation of the fourth amendment to the United States constitution which guarantees equal protection to all;
3. It was held that the refund clause provided the use of tax funds for purposes of a gift, thus violating the state constitution;
4. It was held that the gasoline tax in connection with the state license fee amounts to a double tax on motorists;
5. It was held that the law discriminated between gasoline and kerosene, both of which may be used as motor fuels and
6. It was held that the act was discriminatory in that it excluded electric vehicles from taxation.

Approximately \$8,750,000 has been paid the state director of finance as gasoline tax since last August 1 when the law became effective. Despite the fact that the law has been held unconstitutional and inoperative, little hope is held out for the refund of the tax even to large buyers who have kept records of their purchases.

The suit assailing the validity of the law was brought by the Chicago Motor Club.

Kingsley and Gabelman at Publishers' Meeting

CHICAGO, March 6—Howard F. Kingsley, president, and H. H. Gabelman, sales manager, of the Kingsley-Miller Co., 625 West Jackson Blvd., spent last week at the Southern publishers convention in Atlanta. On their return, Mr. Kingsley immediately left on a business trip to New York City. That's how things are booming for the Kingsley-Miller Co.

From Oranges to Overshoes



A. S. Holmes

MR. HOLMES, who has been promoted to sales manager of District No. 2 for the AC Spark Plug Co., with headquarters in Flint, will soon be a widely traveled young man. His district comprises Michigan, Indiana, South Illinois, Eastern Missouri, Kentucky, Tennessee, Alabama, Georgia, Florida, West Virginia, Ohio, Western Pennsylvania, Ontario, Quebec, New Brunswick, Nova Scotia and Prince Edward Island.

Springfield, Mass., Show Continues the Increase

SPRINGFIELD, MASS., March 3—Attendance at the 13th annual show of the Springfield Automotive Dealers' Association in the Municipal Auditorium marks an increase over previous years. The many new models and wide price range represented are considered responsible for the gain in public interest. Thirty-one lines of cars are shown. About 150 dealers gathered in Hotel Kimball for the annual pre-show dinner. Harry W. Stacy is manager of the show.

Big Gain for Graham-Paige

DETROIT, March 3—Graham-Paige produced 4019 cars in February compared with 1510 in January and 2102 last February, according to a statement made today by company officials.

Public Takes to Travel by Buses

Two and a Half Billion Fares
Paid in 1927; Better
Roads Aid Gain

CHICAGO, March 8—Going from here to there by highway is getting to be quite a business. Last year 23,000,000 automobile owners traveled over 100 billion miles. In addition, 2,525,000,000 passengers went for bus rides, probably bringing the total motor vehicle mileage to 150 billion miles.

Buses in operation in 1927 exceeded the registration of the previous year by 5,830 vehicles. This is a slight falling off in the rate of gain. Of the 85,636 buses in service, 35,900 were school buses. Common bus carriers increased by 2680 vehicles while school buses gained 3100 in numbers.

Bus operation, at one time the most speculative of business ventures, is now on a sound footing with every state in the union well threaded with motor coach lines.

The widespread development of these bus systems, of which there are more than 7000 in this country, is due in a great measure to improved roads, through riding comfort and adherence to schedules.

Adams, Thompson, Whitney, Zelke Join Stutz Branch

CHICAGO, March 6—Four men prominent on Chicago's motor row have been appointed to positions of importance at the Stutz factory branch, 2500 S. Michigan Ave., according to announcement by Manager F. D. Cerf.

Bruce E. Adams has been made general sales manager. He was formerly manager of the Rolls-Royce branch, and recently connected with the Cadillac Chicago branch as general sales manager.

R. M. Thompson, named in charge of the wholesale department, was for six years wholesale manager of the Packard Motor Car Co. of Chicago.

H. S. Whitney, assistant to Mr. Thompson, was formerly with General Motors as wholesale field man in the Northern territory, and is known for his work in field research and analysis.

Andrew A. Zelke, now managing director of the Broadway showroom, was previously with the Cadillac Chicago branch where for three years he led in retail sales. His apprenticeship began in 1902 with one-cylinder Cadillac cars, and he has since held executive positions with the Columbia and Lafayette companies.

Foreign Business Shows Good Gain

Equipment Shipments Increase Half With Parts Close Second

NEW YORK, March 8—Foreign trade in automobile parts, accessories and shop equipment forged rapidly ahead last year, according to a survey just completed by the Motor and Accessory Manufacturers Association.

Shop equipment manufacturers recorded over 50 per cent gain in foreign trade, with replacement parts running a close second. Foreign shipments of accessories in 1927 showed the slightest gain of any.

The ratio between foreign and domestic sales has also shown an increase, 120 companies showing a foreign sales volume of slightly more than seven per cent for an average and some of them running as high as from 10 to 15 per cent in their total sales volume.

Conclusions drawn from the survey vary somewhat from the Department of Commerce figures for the entire industry on the valuation of last year's foreign shipments for the three divisions named. These figures show that exports of replacement parts last year amounted to \$50,274,867, a 40 per cent increase over 1926; accessories, \$7,872,892, a decrease of 8.4 per cent, and shop equipment, \$6,919,944, a gain of only one per cent, which seems to indicate that the M. & A. M. A. members made more than average progress in export business.

Australia, New Zealand, South America, South Africa, the Scandinavian countries, Germany, and England were our most important markets last year.

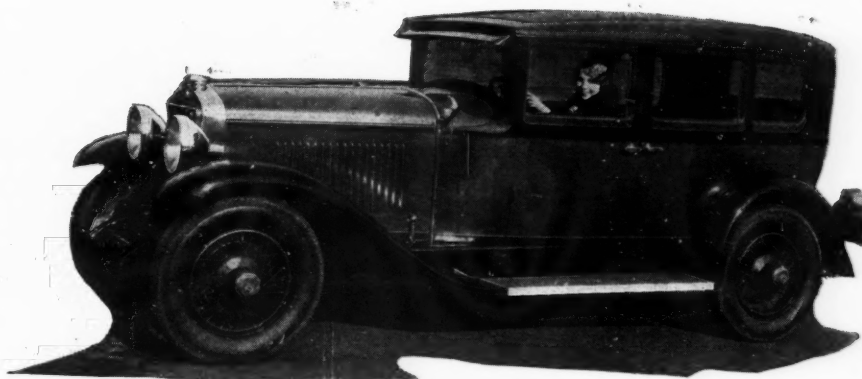
Craft Heads New Stutz Distributor for Texas

INDIANAPOLIS, March 6—Announcement is made of the appointment of Stutz Motor Sales Co. of Texas, Inc., as wholesale and retail distributor of Stutz cars for southeastern Texas, with headquarters in Houston. Formal opening of this firm's establishment at Main and Leland Ave. was a recent event.

Officers of the Stutz Motor Sales Co. of Texas, Inc., are: J. D. Craft, president; C. P. Butch, vice-president; M. C. Martin, secretary and treasurer.

Fisher to be Guest Speaker

MILWAUKEE, March 3—J. B. Fisher, chief engineer of the Waukesha Motor Co., Waukesha, Wis., will be the



Moon Aerotype Four-Door Sedan

THE exterior of this four-door sedan is finished in beige and tan combination. A unique treatment of exterior moldings and window reveals is featured. Interior has luxurious imported tan broadcloth, special period design hardware, smoking sets in taupe goatskin, tapestry assist loops and broadcloth covered robe rail with silvered assist loops integral. The coachwork of this car is of the Franco-Italian school

guest speaker at the monthly dinner meeting of the Milwaukee Section, S. A. E., at the Milwaukee Athletic Club, Wednesday evening, March 7. He will speak on "Automobile Developments in Europe." Mr. Fisher and H. L. Horning, president of the Waukesha company, returned recently from an extended tour of Europe for investigation and research.

E. B. Mull Heads New Zone for Falcon Motors Corp.

DETROIT, March 3—E. B. Mull has been appointed zone manager of Falcon Motors Corp. to take charge of a new zone being formed in the South. Mr. Mull has been associated with various manufacturers in field work in the past few years and is well known to dealers in all parts of the country.

Falcon Motors Corp. is planning to enlarge its field organization to prepare for the expansion of the market on its Knight sleeve valve motor car, according to F. H. Akers, sales manager. He pointed out that the recent enlargement of the Falcon plant to provide an annual production of 30,000 cars will be accompanied by a program greatly to enlarge the dealer organization.

Hight Made Midwest Branch Head by Simplex

TOLEDO, March 2—A. G. Hight, formerly with the wholesale department of the Landman-Griffith Co., distributor for Chrysler in the Toledo territory, has become manager of the Midwest branch of the Simplex Piston Ring Co. of America with offices at Kansas City.

Nash Shipments to Europe Increasing

KENOSHA, WIS., March 5—February shipments of Nash cars to overseas points showed an increase of 29 per cent over February of last year, making February of this year the greatest single month in the export record of the company, it was announced today by Charles W. Nash, president.

The increase in export orders for the month was 46.4 per cent greater than for January. It is expected that March will show an even greater increase.

February also showed an increase in domestic shipments of 24 per cent over the previous February and 32 per cent over January.

Takes Used Airplane in Trade for Automobile

MILWAUKEE, March 6—George H. Williams, head of Geo. H. Williams, Inc., distributor of Franklin cars in Milwaukee and Wisconsin, pioneered in the automotive merchandising business during the past week by taking in a used airship as part payment on a new Franklin. The ship is a Lerome scout type biplane of 22 ft. wing spread, powered by a French Lerome rotary air-cooled engine.

"Merely in the line of business," said Mr. Williams, in discussing this unique transaction.

Campbell Sails for Home

NEW YORK, March 2—Cap. Malcolm Campbell, holder of the world's automobile speed record, sails tonight on the Berengaria for England, accompanied by Mrs. Campbell.



Puzzle Picture; Who Are They?

YOU undoubtedly know some of them, but if there's any doubt in your mind don't hesitate to look at the bottom of the next page; there you'll find the whole story, all diagrammed for easy identification

Devil Purgers Purify Ford's Japanese Plant

CLEVELAND, March 5—Protected from evil spirits by rites of the ancient Shinto religion, building of Japan's new Ford assembling plant is under way, according to word received here by the H. K. Ferguson Co., contractors.

The Shinto ceremony was described in a letter from J. W. Lowell, one of the Ferguson engineers in Japan. It was performed by three priests and lasted an hour, after which the first spade of earth was turned with accompanying pomp. At the close of the Oriental ritual, modern pile drivers were put into operation to lay the foundation.

The Nipponese Ford factory, near Yokohama, was designed and is being built by the Cleveland firm. It is expected to be finished by next August, and will produce Fords and Lincolns at the rate of 200 a day.

Export Managers to Meet

NEW YORK, March 6—The Export Managers Club of New York, Inc., is planning its eighth annual get-together meeting and banquet to be held at the Hotel Pennsylvania, New York, on March 20. Topics for discussion at this meeting include new export methods, the use of aviation in expanding foreign trade and cables, international telephone and radio.

In the afternoon session the topics handled will be budgetary control of export business, export sales quotas and the use of motion pictures in promoting foreign sales.

Stop Fordson Production

DETROIT, March 3—Ford Motor Co. states that it has discontinued the manufacture of Fordson tractors. The

company declares that while the Ford industries were curtailing operations pending introduction of the new car last summer enough tractors were produced to supply the trade for some time to come.

The company will continue to manufacture replacement parts for the upward of 500,000 Fordson tractors now in the field.

Brooks on Eastern Trip

INDIANAPOLIS, March 3—H. H. Brooks, general sales director of the Marmon Motor Car Co., has departed for a 10-day visit with six of the company's largest distributors, in Portland, Maine, Boston, New York, Philadelphia, Baltimore and Washington.

Commissioner to Head Activities of G. M. D.

CHICAGO, March 5—Commissioner Wm. M. Webster of the Automotive Equipment Association will make the following announcement in the next issue of the "Leader," it was learned at his office here today: "The board of directors at the mid-convention session decided the present Greater Market Development set-up was all wrong. In the belief that all departments should be under one head, answerable to the board of directors of the association, it was decided by unanimous vote of the directors to place that authority with the commissioner."

It is understood that no fundamental change is to be made in the operation of Greater Market Development; that the directors reaffirmed their desire to continue Greater Market Development, and as evidence of this have refinanced the activity through July, when future provisions for it will have been made at the summer convention in June.

Output Improves as Sales Increase

Car Business Generally Better With Prospects of Good Spring Buying

NEW YORK, March 3—Generally improved production schedules effective in practically all automobile plants during February will be further increased in March with the opening of spring buying. Some stocks of new cars have been accumulated in preparation for spring trade but these are generally lower than in recent years and the development of normal buying will require continued large production to meet deliveries.

Though increased deliveries of Ford cars will be made in March these will have little effect on the general market. All of the Ford deliveries must be made on back orders for at least several months, leaving all of the spontaneous market to other makers. Buyers coming into the market during the first half of the year will be compelled to turn to other makes if they desire immediate use.

February sales reported from leading centers show gains over the same month last year, this despite the fact that a considerable part of the February, 1927, sales were Fords. Nearly all parts of the country except the Northwest and Pacific Coast States have been buying in good early year volume and notable improvement is shown in some districts which recently have been stagnant.

Used car buying has been much improved during February clearing the way to more active movement of new cars. Prices on used cars are generally lower under the influence of reduced prices in the lower priced new cars and this is stimulating sales without the necessity of bargain offerings. Mild weather conditions are having important effect on the good early year used car movement.

Asks Deposit of Stock

DETROIT, March 5—A letter has been sent to the common stockholders of the Graham-Paige Motor Corp. inviting them to deposit their stock in a voting trust. The letter states that a substantial portion of the corporation's stock is now in voting stock which places all the Graham Brothers in full responsibility for the management of the company. The Detroit Trust Company will give voting trust certificates for all stock deposited.

Chrysler Offering Fabric Limousine

New Type of Body Construction Employed in Custom Car of Luxury Type

DETROIT, March 1—The Chrysler Sales Corp. is now offering for special orders a custom fabric body limousine on its "72" chassis.

The fabric automobile body has won considerable popularity in Europe and some observers of motor car trends are forecasting for it a vogue in this country.

The process of manufacture, as described by its sponsors, provides for making the body frame from selected kiln-dried hardwood, which is accurately machined, carefully glued and secured with joints reinforced when necessary. This is covered with expanded metal lath, giving strength with extreme lightness, the manufacturers explain. Cotton wadding is used as the next layer in the fabric to absorb vibration, and a heavy canvas is stretched tightly over it to assure smoothness of surface. The construction is finished with a covering of Meritas leather cloth, a fabric with a hard weather-proof surface which is said to retain its beauty almost indefinitely.

In the "72" Custom Fabric Body Limousine, now offered by Chrysler, the fabric construction is employed rearward from the cowl bar, the hood being of metal, as usual.

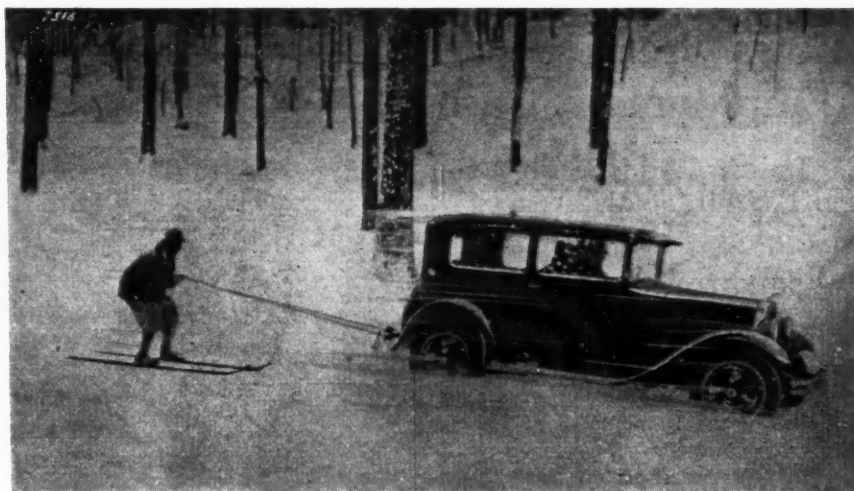
Appointments of the new limousine are of characteristic Chrysler luxury.

Form Auto Trades, Inc.

MILWAUKEE, March 3—To effect a merger of all interests that have been developed as separate entities in recent years, the Auto Trades, Inc., of Milwaukee has been incorporated. It combines the interests of the Milwaukee Automotive Dealers' Association, the Auto Realty Co., and the Auto Trade Salvage Co.

The realty company was formed several years ago to hold property consisting of a large warehouse and workshop for annual auto show equipment, scenery and decorations. The salvage company came into being seven months ago to establish a salvage yard and plant that already has salvaged 908 cars out of the total of 1015 cars taken in since the beginning of the operation. The consolidation of the three activities is expected to promote economies and convenience in handling all affairs.

L. D. Frint, Oldsmobile distributor,



Thrill, Skill and Spill

WINTER-TIME means fun for the ski enthusiast. The neophyte—whatever that is—who finds the jumps too much for his skill, can have all of the thrills of a flying trip through the air, however, if he has an Erskine Six and a clear, snow-covered road

is president and Francis A. Cannon is executive secretary and manager of the corporation.

Wins Right to Tax Buses on Road Mileage Basis

WASHINGTON, March 2—The right of a state to tax interstate buses on a mileage basis was upheld this week by the U. S. supreme court. The decision in the case of Interstate Bus Corp. against the commissioner of taxes of Connecticut, held that the state of Connecticut has a right to impose a tax of one cent a mile, for each mile traversed, on motor vehicles used in interstate transportation. The tax was imposed by the state.

The supreme court holds that this is not an excessive tax, and that it is not a burden upon interstate commerce, due primarily to the fact that the buses use the highways, and that the tax collected is used in its entirety for the maintenance of these highways.

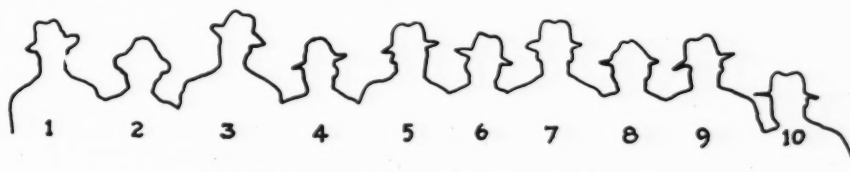
Graben Motor Co. Will Distribute Marmon Line

DES MOINES, IOWA, March 7—The Graben Motor Co., temporarily located at East Fifth St. and Grand Ave., has been appointed distributor for the Marmon car in 42 central Iowa counties. A. G. Graben, head of the new distributing organization, has been associated with the industry for 12 years. For the past two years he has been East Des Moines Chevrolet dealer.

\$631,000 is Mohawk Net

AKRON, March 2—Net profit of Mohawk Rubber are \$631,000 after all charges. Sales were \$5,700,000, and current assets are \$2,000,000 against \$1,000,000.

S. S. Miller, president of the company, termed the statement a financial comeback for Mohawk, which faced a \$350,000 deficit the first of 1926. This has been wiped out and the entire Mohawk structure is perceptibly stronger.



AC Salesmen Visit Plant

A FEW of the AC Spark Plug Co. district dealer representatives who met in Flint the other day for a general conference. No. 1., A. S. Holmes, district sales manager; (2) R. C. Florin, Quebec, New Brunswick and Nova Scotia representative; (3) A. R. Letts, western Pennsylvania; (4) Earl Welton, southern Illinois and eastern Missouri; (5) A. H. Smith, Ohio; (6) J. H. Parkinson, Ohio; (7) R. B. Pepper, Michigan; (8) E. C. Klenke, Cincinnati and Kentucky; (9) J. P. Davidson, special representative, and (10) E. R. Mayville, district sales office manager. (See page 20)

Shows Greatest Employment Gain

Car Industry Adds 35 Per Cent to Payroll Totals; Wagon Trade Decreases

WASHINGTON, March 2—An increase of 1.1 per cent in employment and 3.9 per cent in payrolls, during January, as compared with December is reported by the Bureau of Labor Statistics of the Department of Labor. Comparing January of this year with last, the figures show a decrease of 5.5 per cent in both employment and payrolls for the current month. The data for January, 1928, is based on returns from 10,772 establishments in 54 of the chief manufacturing industries, employing 2,907,700 workers, whose combined earnings averaged \$75,000,000 per week.

Ten Increase Payrolls

Of the 54 industries, 10 reported an increase in payroll totals and employment during January and of this 10, the automobile industry shows the largest increase. The figures show that during January the industry increased its number of employees 8.6 per cent, compared with December. The automobile tire industry showed an increase in January of 5.4 per cent. Comparing January with January of a year ago, the automobile industry showed the most pronounced increase, being 9.4 per cent in employment and 35.2 per cent in payroll totals.

The increase in automobile business is reflected in the carriage and wagon industry, which showed an outstanding decrease in January, compared with the same month of 1927.

Good Luck



Orrin P. Kilbourn

AS you undoubtedly read in last week's MOTOR AGE, Mr. Kilbourn, assistant general sales manager for Willys-Overland, Inc., for the past five years, has resigned to become associated with the automotive unit of the J. Walter Thompson advertising agency at the company's headquarters in New York City. Previous to taking over his sales executive job with Willys, Mr. Kilbourn was connected with the export division.

Aluminum Industries, Inc., Has New York Warehouse

CINCINNATI, March 3—In keeping with its slogan of "At Once Service," announcement is just made that Aluminum Industries, Inc., manufacturer of Permite pistons, has established a New York City warehouse, which is located at 33 West 60th St.

A complete stock of all types and models will be carried.

Chrysler Powered Boat Ends Voyage

Dodge Watercar's Strenuous Albany-to-Miami Trip Severe Test

DETROIT, March 5—What is regarded as one of the severest tests it would be possible to devise for a marine power plant was successfully completed when a 1928 Dodge Watercar, powered with a Chrysler Imperial marine engine, rode gallantly into the harbor of Miami, Fla., and brought to a triumphant finish a spectacular and hazardous voyage that had begun far up north at Albany, N. Y.

The log of the journey, taken to the Chrysler corporation in Detroit by W. J. Martin, veteran Dodge driver, who piloted the Watercar on this trip, shows a long and impressive list of strenuous experiences on inland canals and out in the open ocean which exhaustively tried the stamina and performance qualities of both boat and engine.

Meets Heavy Storm

Running many miles down the Hudson river in a tangle of floating debris from upstate floods, frozen in the Raritan canal by ice which formed faster than it could be broken and which threatened momentarily to riddle the hull of the little craft, tossed about Chesapeake Bay by a furious gale, storm beaten on the open Atlantic when inland canals were unavailable, the doughty Watercar steadfastly kept its unwavering way toward the South and its smoothly running engine supplied a consistent stream of power without missing a beat throughout the entire run.

What's Coming In Motordom

SHOWS

Automotive Equipment Ass'n, Coliseum, ChicagoOct. 22-27
Bay City, Mich.March 8-12
*Boston, Mechanics Bldg.March 10-17
Corpus Christi, TexasApril 4-7
Fort Worth, TexasMarch 10-17
Goldsboro, N. C.April 9-13
Holdrege, Neb.March 21-24
Los AngelesMarch 3-11
National Standard Parts Association, Cleveland Auditorium...Oct. 29-Nov. 3
San Diego, Cal.March 10-15
Santa Barbara, Cal.March 7-11

Sioux Falls, S. D., Coliseum...March 28-31
*Tampa, Fla., Davis Island Coliseum, March 29-April 5

CONVENTIONS

Automotive Equipment Association, Grand Hotel, Mackinac Island, June 10-16
Automotive Equipment Ass'n, Coliseum, ChicagoOct. 22-27

*Will have special shop equipment exhibit.

National Standard Parts Association, Hollenden Hotel, Cleveland, Oct. 29-Nov. 3
New Jersey Automotive Trade Ass'n, ElizabethMay 8
Society of Automotive Engineers, Chateau Frontenac, Quebec..June 26-29
Texas Automotive Dealers' Association, Gunter Hotel, San Antonio..April 16-17

RACES

Atlantic City, N. J.May 5
DetroitJune 3
IndianapolisMay 30

May 3—Sales and Service Reference Number—Motor Age
June 10—A. E. A. Summer Meeting Number, Motor World Wholesale
June 23—Engineering Issue—Automotive Industries

Boston Prepares for Best Exhibit

All Show Space Sold; Predict
Attendance Will Set
New Record

BOSTON, March 3—All the Boston dealers, salesmen and others identified with the selling of cars, trucks, accessories, etc., are looking forward to the opening next Saturday afternoon of the annual automotive show with much anticipation. Following the large number of sales in January and February, and the big interest displayed at Washington's Birthday open houses they expect to do a big business during the week. If hard work and long hours count they will do a good job.

Manager Chester I. Campbell has taken over Mechanic's Building and his men now are swarming over it getting the structure into shape for what is promised to be the most elaborate exhibition ever staged in this or any other city. Boston for years has had the reputation of doing a wonderful job in its decorations, and this year the plans call for effects that will surpass all other efforts.

There will be 43 different motor cars shown; nine truck exhibits, and two motorcycle lines. There will be a big accessory section, also a shop equipment department.

It is announced by the management that all show space has been sold.

As usual there is to be a big array of motor officials in town for the different luncheons and banquets during the week. These will run through until Thursday.

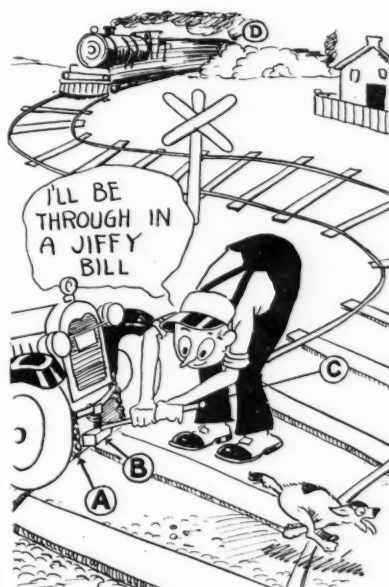
Chevrolet will have a meeting and banquet before the show. The business meeting will be held in the Repertory Theatre where it will be possible to use the stage for display purposes. In the evening the banquet will be held at the Copley-Plaza. Vice-President Richard H. Grant will be in charge with a crew of Chevrolet stars to fill in the other parts so that it will leave the dealers free throughout show week to attend to business.

On Friday night there is to be a big pre-show "Round-Up" to which many automobile executives have been invited.

Make Tools for Parking Brake for Ford Model A

DETROIT, March 6—It is understood that tools are being made to provide for the manufacture of a parking brake on the rear drums of the new Ford car. Several weeks ago the Ford Motor Co.

Sloppy-Shop Kinks



No. 1. Straightening Axle

A GOOD way of straightening a front axle that is bowed down in the middle, is as follows: Get a powerful jack (B) and two 3 ft. lengths of heavy chain. Drive the car to the nearest railroad track (C) and place both front wheels on the railroad track so that the front axle is parallel with the track. Chain (A) the outer end of the axle to the track and place the jack in the center. The jack can then be brought up until the axle is straightened. It is well to look both up and down the railroad track before chaining the car to the rail as a train (D) may be coming.

announced that it would add a parking brake, but at that time it was said that the brake would be attached to the propeller shaft.

Production of completed Ford cars continues at a rate of approximately 1000 units a day, although the company is manufacturing a quantity of certain parts which are being shipped to the various assembly plants and held in store for big time production once the company is prepared to go ahead on a big scale. Many of the difficulties which the Ford Motor Company is reported to have experienced in getting under way on the new car are being overcome, it is understood, and while production on a broad scale is still some weeks away the Ford organization is confident that the worst has been passed.

Willys-Overland's Largest February

1200 Cars Daily Reached;
Many Unfilled Orders;
Record Payroll

TOLEDO, OHIO, March 6—Production of Whippet and Willys-Knight motor cars last month was the largest February output in the history of the Willys-Overland Co., according to a statement issued by executives of the organization. It was said that the month's total production was close to 25,000.

Production of these cars, on several days, exceeded the 1200 a day mark.

Employment at the Toledo plant, with 17,900 on the payroll, is the largest number ever employed by the company, the statement said.

Despite the high production figure reached, there are 25,000 unfilled orders for cars on file, the daily influx or orders being maintained in the same high volume that has characterized the demand for these cars since early in January when the Whippet prices were reduced.

The statement also declares that the demand for the three lines of Willys-Knight sixes is necessitating a high production schedule to meet the demand of the Willys-Overland dealer organization.

Gardner Statement Shows Excellent Financial Health

ST. LOUIS, March 3—At the end of 1927, Gardner Motor Co. had current assets of \$1,377,902 against current liabilities of \$286,351, a ratio of about five to one. Of the current assets, \$619,405 consisted of cash placing the company in an exceedingly favorable position to meet any eventuality in the 1928 automobile market. Cash on hand was more than twice the amount of all current liabilities. During the year the company improved its cash position by at least \$360,000 through the sale of 45,000 shares of capital stock.

Working capital at the end of 1927 was \$1,091,551 against the 1926 figure of \$828,273, a gain of \$263,078. On December 31, 1926, the company had \$144,618 in cash and total current assets of \$1,036,755 against current liabilities of \$208,482.

Fixed assets at the end of 1927 were carried at \$368,592 after deduction of depreciation reserves of \$115,452, equal to about 24 per cent of the book value of the building, machinery and equipment. Total assets were \$1,778,676 as compared to \$1,447,644 for 1926.

Gas, Oil and Hot Dogs—Drive In

At a police auction of derelict automobiles in Philadelphia last week, two of the cars brought five cents apiece. "Bought for jitneys," wisecracked Mein Host Harry deHaven Grow, of the De Luxe lunch wagon.

"Hot-Hed" is the name of the Northeast Electric Co.'s new cigar lighter. We suggest the slogan, "Don't get hot-headed. Get a Hot-Hed."

Ray Cunliffe has gone to Baltimore as Cadillac-La Salle distributor. He is hereby warned that acidopholous milk does not agree with Baltimore crabs.

Larry Sasscer, assistant general sales manager at Peerless, has

kicked about our reference to the pompadour he once sported. We have often wondered what was the color of his hair when he had it. The gingeriness of his protest removes all doubt. It must have been red.

Answering numerous correspondents, we regret to report that Matt Dittman did not pose for the cartoon in the Bragg-Kliesrath ad on the inside back cover of the March 1 issue of MOTOR AGE.

"Willing to go abroad" reads a MOTOR AGE headline. So are we, but the finances are weak.

If your son doesn't like to work and gets someone else to do every-

thing for him, don't condemn him as lazy. He may be revealing the first symptoms of executive ability.

What has become of all the auto goggles?

The National Pedestrians' League is planning a monument to the inventor of the balloon tire. "It is a pleasure to feel the soft cushion of a balloon tire encompass your body," said a spokesman for the N.P.L.

Soak cure, dear reader, is not what you think it is at all. It is described by Goodyear News as the method of even distribution of temperature through large thickness of rubber. It is used in vulcanizing pneumatic truck tires.

John Cleary Says—

During its current sale of grand pianos, a Philadelphia department store will make you an allowance for your old upright.

It will then put a plate on the old instrument, bearing your name as donor, something like this—

"To Mercy Hospital, from Mr. and Mrs. John Dokenwadel, March, 1928."

The store will then deliver your old piano to any local hospital or other charitable institution you may designate.

Such a donation of some of the tinpans I have heard would fall under the heading of crimes committed in the name of charity.

The same goes for the automobile business.

If you take in trade a used car that you will not offer for sale, send it to the junkyard.

Don't pretend your business is a philanthropic institution.

Bunking, Junking and Hunting

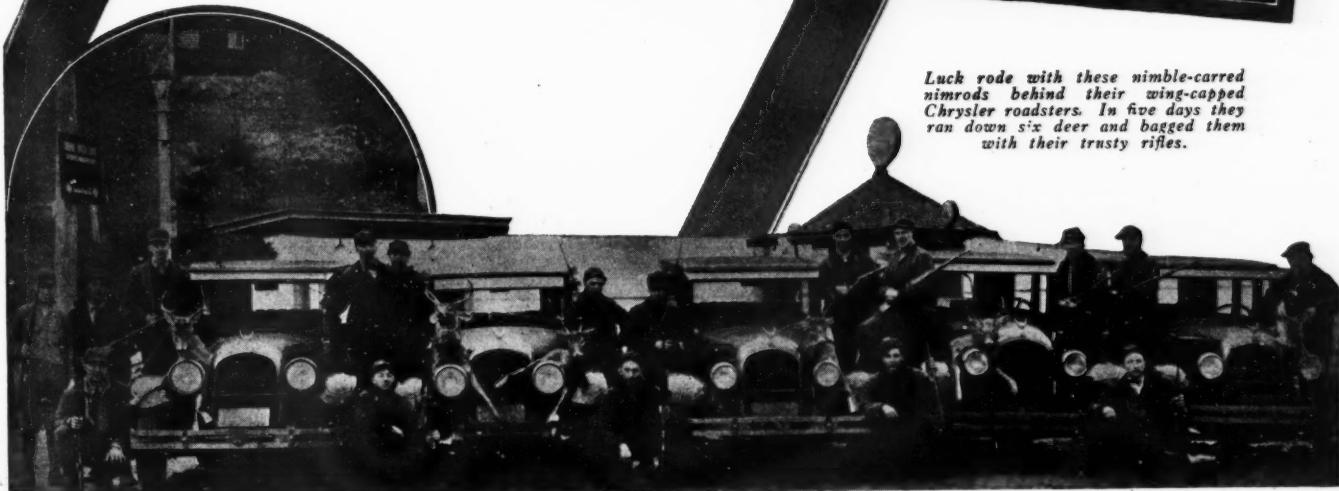
She's a he and her name is "Speed" Bradford. Garbed in fine feathers, "Speed" put on an endurance run for Washburn Haines, Inc., Chrysler dealer of Seattle, Wash., and fooled the public plenty with his Eltingian stunt.



The Omaha dealer-operated salvage yard turned no-account junked car bodies to some account when they cooperated with residents in the Missouri River bottoms section in using the bodies for riprap purposes. The loading and riprapping operations are pictured.



Luck rode with these nimble-carred nimrods behind their wing-capped Chrysler roadsters. In five days they ran down six deer and bagged them with their trusty rifles.



Little Joe Throws

JOE KELLY is a Buick salesman. He likes his job because he is making money. His boss likes Joe for a variety of reasons, videlicet, namely, and to wit:

Joe works the way his boss wants him to work.

His deals carry no aftermath of grief for the house.

He has less difficulty than the other salesmen in closing clean deals—without trade-ins.

He gets more repeat orders.

He has more two-car families on his list.

He takes in used cars that can be quickly sold without eating up all the profit on the new car sale.

I heard all this about Joe, but, like you, I didn't believe it. Joe's boss confirmed the tale. Still I didn't believe it. I sought out Joe himself. He didn't look like a miracle-worker.

"I am not the seventh son of a seventh son," Joe replied to my query about the source of his luck. "I do not carry a rabbit's foot or an amulet of any kind. I walk under ladders, work just as hard on Friday the thirteenth as any other day and do not count the people who sit at chow with me. In fact, luck has very little to do with the money I am making as a salesman. I'm just a young fellow trying to get along."

"Then you must have a secret," said I.

"Nary a sec," answered Joe.

"Come on, open up, Joe. Tell a fellow how you do it. The other salesmen who read MOTOR AGE would like to know," I coaxed.

"I'm not a schoolmaster," said Joe, "but if telling you will get rid of you so I can keep an appointment for a demonstration, all right. But I'm warning you in advance, it's all so simple that you won't believe it, and neither will the salesmen who read your book—if any.

"It began when I picked my job. I picked out a car I would like to own myself. That accounts for the Buick. Then, from among the dealers selling the Buick, I picked out the guy who seemed to me to know where he was headed, and how to get there. That accounts for the boss. P.S.—I got the job.

"When I started working for the boss, I decided it was the best policy—for him and for me—to work his way. And when you come right down to cases, that is the secret of whatever success I have had.

"One of the few things the boss is preaching about all the time is that every salesman must call on a certain number of Buick owners every day, as well as a certain number of prospects. Some of the fellows sidestep these owner calls whenever they can, or make them in a perfunctory way. Not wise little Joe. I make these calls on owners even if I have to pass up some prospects in doing so. In fact, I have built up my business on these owner-calls.

"The owner thinks I am calling on him merely to see that he is satisfied with his car, to ask if he has had any cause for complaints. I do that, to be sure, because I am interested in the satisfactory running of his Buick, but my interest in Mr. Owner does not end there by any means.

*He Plays His Winning Game With
Used Cars Useful to Him
"Shakes, Rattles*

"As soon as a new owner takes delivery of his car, I begin to use him and his new Buick as a source of new customers. Don't misunderstand me. I don't simply ask him if he knows anybody who wants to buy a car. On the contrary, I may say nothing at all to him. But I do find out who his neighbors are, and I work on them, using the new owner's shiny new car, which they have all seen and admired, as my introduction. Then I work on the likely buyers among those with whom the new owner is associated in business. On my follow-up calls on the owner, I learn the names of his friends who have had a ride in the new car and the names of his wife's friends who have seen it at bridge parties or elsewhere. That's the way I capitalize on the new owner.

"The owner of an older car is something else again. When I call on him—in a new Buick—I am apparently not at all interested in his buying a new car. I am decidedly interested in the performance of his present Buick. I refer to it as evidence of the permanent value that is built into the car at the factory, and I assure Mr. Owner that there still are many



a Selling Natural

*His Owner—List, and Makes the
self. Joe Tells How He
and Rolls”*

By
JOHN CLEARY

thousands of miles of satisfactory service in it.

“I actually go over some of its good points—its good appearance and so on—and then almost casually drop the thought that he would be foolish to think of trading it in because it has so much more value to him than it has to the dealer or anyone who might buy it from a dealer. In other words, I try to steal his used car thunder. Of course, I am not entirely mute on the subject of the style appeal in our new model, and I do

drop some hints on the improvements that have been added since Mr. Owner’s car was built. I give him a little ride, and let him take the wheel.

“Mr. Owner is almost sure to ask what I will allow him in a trade. I am surprised that he would consider trading his present car, for the twofold reason that I have already given him—the fact that the car is still a satisfactorily performing automobile, and the fact that it is worth considerably more to the owner than to anyone else.

“Is there any need to draw you any further diagrams? You can see that the way has already been opened up for me to do either one of the two desirable things: convert the owner to the two-car-family
(Turn to page 44, please)

*Joe praises the
owner’s used
car
and steals his
thunder*



To Help Themselves



needed. Likewise, the peddler quotes nothing but list price and usually a stiff one at that.

Furthermore, the peddler wastes much of the men's time. He enters the shop—frequently without the boss knowing it—and proceeds to distract the attention of the men. They leave the work they are on—possibly rush jobs. They gather around the peddler's samples. Discussions develop between the men and with the peddler. More frequently than not the men buy. But what they buy, in many cases at least, comes high as a result of high list price and the time lost.

The hardware dealer, unlike the peddler, has an established business. His characteristics are similar in many respects to the automotive jobber. Similar at least so far as method of doing business is concerned. One outstanding difference, however, as a rule is his refusal to give those in the automotive trade a discount. Furthermore, the stock of the hardware store, as a rule, does not include a complete stock of those tools most needed by automobile repairmen. In addition, the hardware merchant does not think in terms automotive, and con-

sequently it is hard for the hardware merchant to appreciate the needs of the service men.

Contrasted with these two sources of supplies on tools is one who is devoting all of his time, resources, and energy, gathering to one convenient point those things which will most benefit the automobile repairman. He is the Automotive Jobber. He has the automobile industry at heart; is vitally interested in the success of every service man and automobile dealer in his territory, for *on their success depends his success*. The automotive jobber is established and understands the need of his trade. An order by phone, by salesman, or by mail, is promptly and intelligently handled.

Another outstanding advantage of buying tools from the automotive jobber is that he adds his guarantee to the guarantee of the tool manufacturer. Should it become necessary to replace a defective item, the jobber stands ready to do this, protecting the service man from expense, inconvenience and possible loss.

Nor is that all. The service man in buying through
(Turn to page 44, please)



The prospective salesman is given a book containing a proved effective approach, demonstration and closing, with answers anticipating all questions likely to be asked by the prospective purchaser . . .

I HATED the blacksmith's trade. It wasn't pleasant work; holding up horses while you tacked their shoes on, breaking your back straightening out anchor flukes and working all the time in a draughty, smoky and dimly lighted shop. And it had no future. How little it really had I did not realize because that was fifteen years ago and the automobile had hardly come into its own. But I had put in four years learning the trade and there was little else to do in the small town where I was born. I could have been a carpenter but their work was far from steady. I could have been a fisherman, but that held even less attraction for me. I didn't like the smell of fish and every time I went out for a day's cruise, as a bunch of us sometimes did in summer, I got downright sick.

Just at the time when I had about decided to chuck my leather apron into the blueberry bushes back of the shop and try my luck in the nearby city, the local fathers got wind of a company that wanted to build a precision tool plant in a town where they wouldn't be bothered with taxes, or local supervision of too keen a nature. The upshot of the negotiations was that the company moved to our town and took over the old harness factory building. I got a job with them at a good wage, thanks to my sledge-hammer apprenticeship. When I resigned my position with them the first of January a year ago, I had been foreman for five years.

Everyone in the village said I was crazy when I told them I was going to try the selling field. My family was particularly bitter. They had become so accustomed to that \$50 a week—and it wasn't steady pay either, because the plant wasn't always busy—that they could see nothing but starvation staring them in the face if they were deprived of it. They had quite a few words to say on the subject as families do. And none of them encouraging. They thought I was suffering from the same mild form of insanity that had made life bearable for Uncle Harvey in his later years. But I didn't care. I had been thinking a lot about the future. I had come to realize that a man can't cut much of a figure as a retired gentleman

Can You You're



He is told to study the book until he has mastered it in every detail. When he is letter perfect and has been convinced that to make sales it is wiser to adhere to the accepted formula . . .

on the savings he can scrape out of a lifetime of intermittent \$50 pay envelopes. The thought that I was approaching 40 with nothing to look forward to except old age made me desperate. With the same spirit that had caused my ancestors to leave comparative comfort in Germany for a sporting chance at better conditions in the new country, I threw up the job and went forth to see if I couldn't find a place where the pay envelopes were thicker and came at least once every week, regardless of strikes, slow markets or what have you.

With the optimism of one who has had no experience with want advertisements, I turned to the city papers in quest of my selling job. The first ad my eye lighted on appeared to be about my size. It was rather lengthy and stood out from the others. It had an air of authority about it that caused me to believe in it. Briefly, it stated that men without selling experience, "who could do what they were told to do" were wanted by the Blank Company, to be trained as salesmen. I answered that advertisement.

In a few days I received an answer telling me to report for an evening sales class then forming at Forester's Hall. I went and found myself among a group of varied types. There were men with too large collars who looked as though they had just come from the farm; unkempt, swaggering men who might have been sailors and probably were; several who looked suspiciously like hard drinking wastrels intent on scraping together a few dollars in their saner mo-

Do What TOLD to Do?

*There May be a Lesson for Automotive Salesmen in This Story, Outlining the Policy of an Electric Appliance Manufacturer Who Insists That His Salesmen MUST Present His Product in the Way He Has Found Most Resultful—
Both for the Manufacturer
and the Salesmen*

By Nathan V. Farbel

as told to

Sherman Swift



He commences his canvass. By doing as he has been told to do, not varying his sales talk to satisfy any personal whim, he soon finds that his employer was not wrong in insisting upon salesmanship by the book . . .

ments; and a sprinkling of others that I mentally classified as being nearly everything from truck drivers to retired ministers. Which, I found out later, was a near enough guess.

At 8 a lecturer appeared. After briefly outlining the work, which was the selling of an electrically operated household device, he asked all who were interested in the proposition to rise. We were to be paid on a

straight commission basis, he said, and the company would see that we were well trained. Half of us stood. The rest left the hall, noisily for the most part, many of them muttering in a way that was not at all complimentary to the speaker nor to the company that he represented.

The lecturer then asked those who had remained if we were willing to work as we were told to work, to do what we were told to do, and to say what we were told to say. He asked us to hold up our hands in acquiescence.



Further, he finds that the success of a sales talk is a good reason for not changing it; his sales average is proportionate to the number of calls he makes, and that the system vindicates itself with orders.

CAN YOU DO WHAT YOU'RE TOLD TO DO?

We were to consider our promise as binding, he said. At this juncture several others left the hall and when the meeting finally got squared away, there was only a handful left in the room.

He started by telling us of the large sums that we could all make if we would do exactly as the company told us to do. We must not think, he said, that we knew more than the company did and regardless of how we might like to depart from the rules laid down, we were under no circumstances to do so. We might not vary the sales talk in any way; nor were we allowed to change our daily routine as regarded initial and return calls. All of which sounded somewhat dubious to me.

After a few minutes more, devoted in great part to impressing us with learning our sales talk verbatim, he read the canvass aloud. Another man demonstrated the device as he talked, starting it up and stopping it, moving it back and forth and doing everything at the proper time, like a mechanical doll. It made me feel like a fool. The lecturer was reading each sentence, addressing himself to a "Mrs. Smith," impersonated by the demonstrator, a brightly dressed, shirt-sleeved and jovial gentleman with a cigar in his face and a smile that folded his chin like an accordion. This demonstrator, as the mouthpiece of the mythical "Mrs. Smith," kept interrupting to ask questions, *which the lecturer answered out of his book*. No matter what question "Mrs. Smith" asked, the answer was in the book.

I recall that my first impression was decidedly derogative. "A lotta hooey," my seat mate called it, as he arose disgustedly and left the hall. But I stayed. And I'm glad I did. Although I didn't feel any too comfortable at the time.

The demonstration finished, we were dismissed, with orders to report at the main office as soon as we thought we had the canvass learned.

I found out later that each advertisement in the paper got the company one real salesman, out of all the large number that started in with the classes; and that the ad was run every day and paid for on a monthly basis. I came close to being one of those they didn't get, too, because the more I thought over the matter and read the questions and answers, the approach and closing arguments, the more childish the whole thing sounded. But I finally got to realizing that the company certainly was successful and it might be just possible that they knew more about making money than I did. When I got that thought into my mind I was feeling better about the whole affair. The next Monday I reported at the office, letter perfect in my role of salesman, in so far as the canvass was concerned.

I had everything down perfect; could give my spiel, regardless of how the examiner interrupted me, knew the answers to all the questions and had the approach, demonstration and closing down pat. But I wasn't ready to go out into the field. Far from it. All that week I had to sit around, demonstrating and re-demonstrating the device, studying and listening.

The following week, after I had about become discouraged waiting around the office, I was sent out with old Mr. Bristol, a retired school teacher who was making more money in his declining years, selling the device, than he had ever made before. They said he was high man in the territory. Which was encouraging. Because Mr. Bristol looked the least like what I had supposed a salesman would look of anyone I had ever seen.

We got into his brand new car and started for his

territory in one of the suburban towns. Within a half hour after we reached the town—on our fourth call to be exact—we got a chance to demonstrate the machine. I heard Mr. Bristol give his approach, heard him lead up to his sales talk and finally his closing argument, giving each exactly as they were printed in the selling manual. I began then to realize what the advertisement meant when it stated that men were wanted *who would do as they were told to do*. And when he made a sale my respect for the man or men who had compiled that pamphlet began to assume larger proportions.

It was startling to a novice like myself to hear how the stock answers fitted the various questions that the prospects asked. It was equally a revelation to hear practically the same questions, slightly varied as to wording, asked by every woman that we talked with.

My first reaction to the whole affair had been slightly derogative; I wondered if an intelligent, educated man like Mr. Bristol would use the sales canvass word for word, the approach and closing arguments exactly as they appeared in the book. Frankly, I expected that a part of it was the bunk and I was more than surprised to hear the old man, in the demonstrations that followed, continue to stick as closely to his text as would a politician to a speech that had previously gotten over in a big way.

When we stopped for lunch, after turning down a dear old lady who wanted us to be her guests, Mr. Bristol had two sales to his credit. We had made 10 calls and five actual demonstrations. Two of these were made without moving the car. A woman to whom we sold a machine sent us next door to her neighbor. That afternoon we made another sale. I say "we;" I did nothing more than carry in the demonstrator, unwrap it and carry it out again after the demonstration.

"Where a man knows the business as well as you do I suppose you don't always bother with the sales talk—I mean you sometimes give one of your own, don't you?" I asked Mr. Bristol, as we were driving home late that afternoon.

He shook his head emphatically, "I never do," he said decisively. "Never. I'm content to let things alone. Why shouldn't I be? You have seen the plan work out 100 per cent right today; if you stay with us indefinitely, you'll see it continue to work out right, day after day, week after week. If there were a way to make it more efficient, you can depend on it that this company, with its intelligently prepared selling campaign and years of experience would tell us about it.

"I have led the sales force from this office since last May. Murryat, the branch manager whom you met yesterday, formerly had the territory. He led the sales force for more than a year before he was promoted. In contrast to that *we have never had a big producer who sold by his own method*. There are a few reactionaries that hang on by the skin of their teeth and make a living. They use their own sales talk. They're extra good salesmen and for that reason they manage to keep going. But if they'd just have the good sense to allow their egos to shrink a bit and adopt the cut and dried sales method, they'd be up among the leaders.

"I'll tell you why the thing works out as it does. It's just another example of the law of averages. It took me a long time to find it out. We all know that a salesman, regardless of what you may have heard to the contrary, is human. He isn't a machine. That means that

(Turn to page 40, please)



A MOTOR AGE IMPRESSION - J.A. NICHOLS, JR.
President - Falcon Motors Corporation

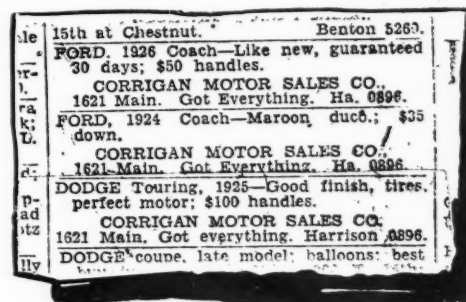
SOLD!

503 Used Cars

At an Advertising Cost of \$1.84 Each

*Kansas City Dealer Accomplishes Results by
Concentrating Appeal in Classified
Columns. Repossessions Less
Than 1 Per Cent*

By H. H. James



These easily written ads sold the cars

MOST motor car dealers if you told them used cars could be sold at an advertising cost of \$1.84 each either would think you were taking a lot of liberty with the truth or you had got your second childhood and started again to tell fairy tales. But that is exactly what M. P. Corrigan, president of the Corrigan Motor Sales Co., Kansas City, did in 1927. And he sold 503 used cars at that, representing a 100 per cent increase over the year previous. How did he do it?

If you wanted to make the story short, you might answer that he spent approximately \$925 for classified advertising in the year and sold 503 used cars. But that would be only the statistics, and not the story.

Mr. Corrigan handles the repossessed cars of five finance companies. The cars he handles all are under the \$700 mark. He operates his own repair shop where all cars, except the "total wrecks," are overhauled. He also has his own body repair shop and paint plant. All cars that need it are repainted and bodies put in first-class condition before going on the sales floor. Every car is sold under a strict guarantee as to mechanical condition. All this is done in the way of building up public confidence in the cars offered.

"When I started in business," Mr. Corrigan said, "I started my advertising in the usual 'broadside' method, using a little bit of every kind but not enough of any to attract much attention. I tried that method for a couple of years with the advertising cost of each car sold going higher and higher. Our method of doing business was meeting with public approval—but it was costing too much per car to get the public interested enough to come to our store, or to give us the opportunity to get in contact with prospects in other ways.

"Then I started concentrating.

"In Kansas City are two large newspaper organizations, publishing morning, afternoon and Sunday

papers. One claimed a coverage of 120 per cent or so—and with an advertising rate accordingly. The other organization claimed a 72 per cent coverage with an exceptionally low classified rate. I figured that the 72 per cent coverage at less than one-half the rate charged by the organization claiming the 120 per cent coverage gave me about four times as much for my money, so I concentrated all my advertising with that group.

"My policy was—and is—to have a classified ad in every edition of the morning, afternoon and Sunday papers of this one organization. By this method I figured I would build up a contact with every person who was reading the classified ads for a used car bargain. And no class of buyers read the classified ads more carefully than persons shopping for a used car. Often I would have a dozen or more ads in one day, the ads being worded to show exactly how much money it would take to 'swing the deal.' Also, I use my slogan, 'Got Everything,' in almost every ad. This with the idea that the prospective buyer could find anything he wanted at our store.

"It was not long before the wisdom of our plan became apparent. More persons began to visit our store than ever before, and sales began to mount.

"The average person wanting to buy a used motor car has a very definite idea of what he wants, what he will pay down and how much a month he can pay—where it is a deferred payment proposition. Cash buyers are even more fixed in their ideas before coming to the store.

"It is not a matter of 'demonstrating' and sales talk. It is a matter of transportation and proving the mechanical condition of the car. Here is where our rigid guarantee brings results. Last year less than 10 per cent of our customers asked for a demonstration other than that of 'trying out the motor' in the building."

Mr. Corrigan says his experience has convinced him

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Above are the quarters of the Corrigan Motor Sales Co. in Kansas City, Mo. At left is M. P. Corrigan, president, who reveals a few of the things he has learned about selling used cars



it is far better to handle used cars on a reasonably low down-payment and small monthly payments over a long period than to attempt to "get the last dollar possible" out of the customer and the largest monthly payment you can get.

"If you try to get too large a down-payment out of a large number of used car prospects, especially the working class," Mr. Corrigan said, "you soon will find you have been working against your own best interests. The customer often will take money that he should have used to pay some bills or put off buying some necessity, to make the larger down payment. Then the

monthly payments come due along with the bills that were put off or the delayed purchase of the family necessity. The result is the customer drops behind with his monthly instalments—and you soon have the used car back on your hands."

Mr. Corrigan says that in selling the 503 cars last year he had less than 1 per cent repossessions. "I believe this low figure is due to our low down-payment and long time policy," he said.

Mr. Corrigan also has kept his other sales costs at a low figure. He does not attempt to use a lot of salesmen to "beat the bushes" for prospects but depends almost entirely on the want ads to bring the prospects. Four salesmen are employed to complete the sales when the prospects call. These men are paid a straight salary with bonus.

While Mr. Corrigan has been confining his business to the low-price field in the past, this spring he expects to take over the repossessed cars of several more finance companies and open another store to handle higher priced cars. He also is considering opening several branch stores in different cities in Missouri, Kansas and Oklahoma.

"But no matter what kind of an expansion program I decide on," Mr. Corrigan asserted, "I am going to concentrate on my advertising. It doesn't pay to 'scatter your shots' if you expect to hit the bulls-eye."

Mr. Corrigan's used car store is located outside the high rent section but on one of the main traffic arteries of the city. He uses large signs on his windows and building to attract the attention of those passing on the street. The signs are changed once each week under contract with a sign concern.

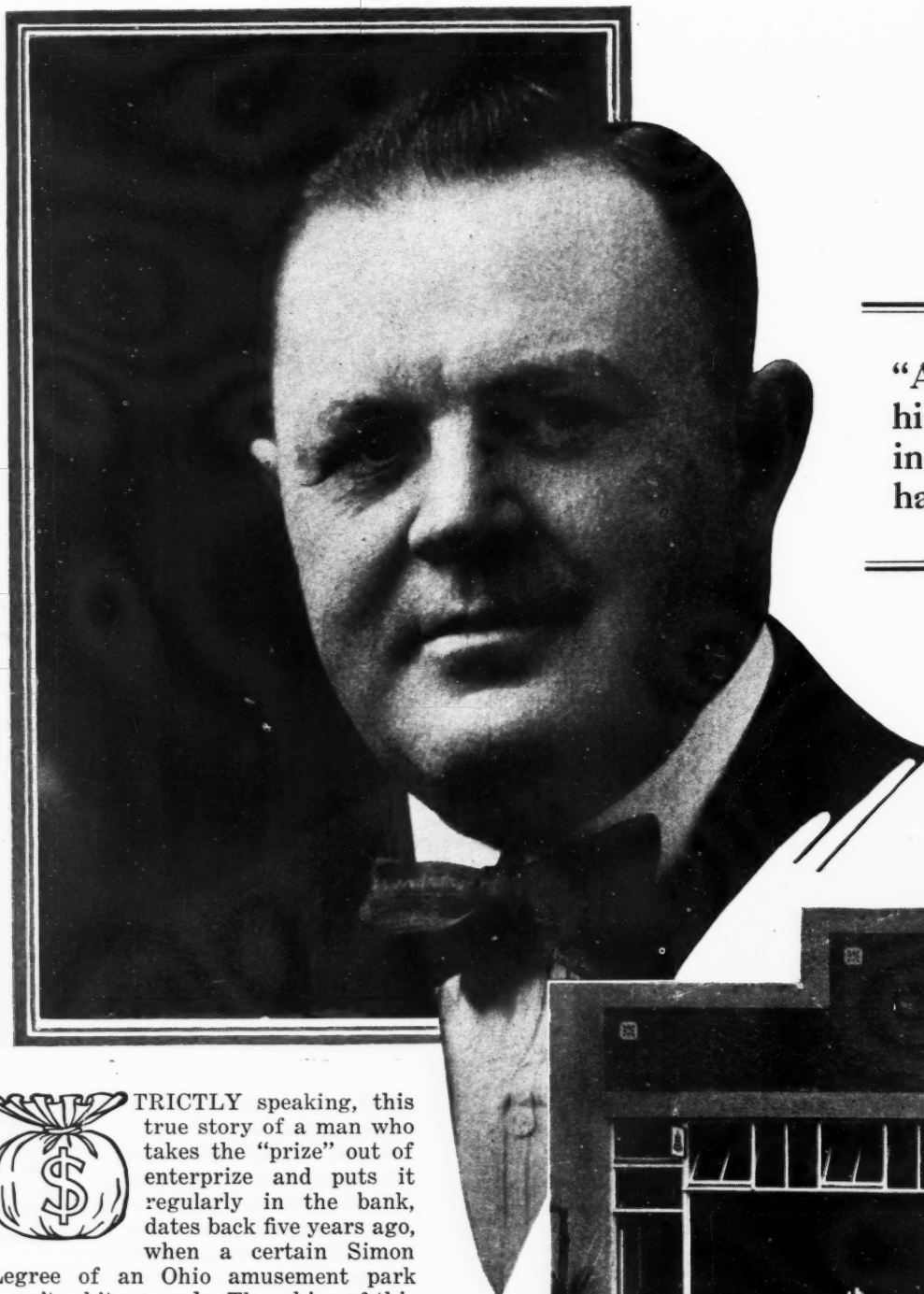
Taking



"A wise man keeps his eye on the bird in the bush even if he has one in his hand."

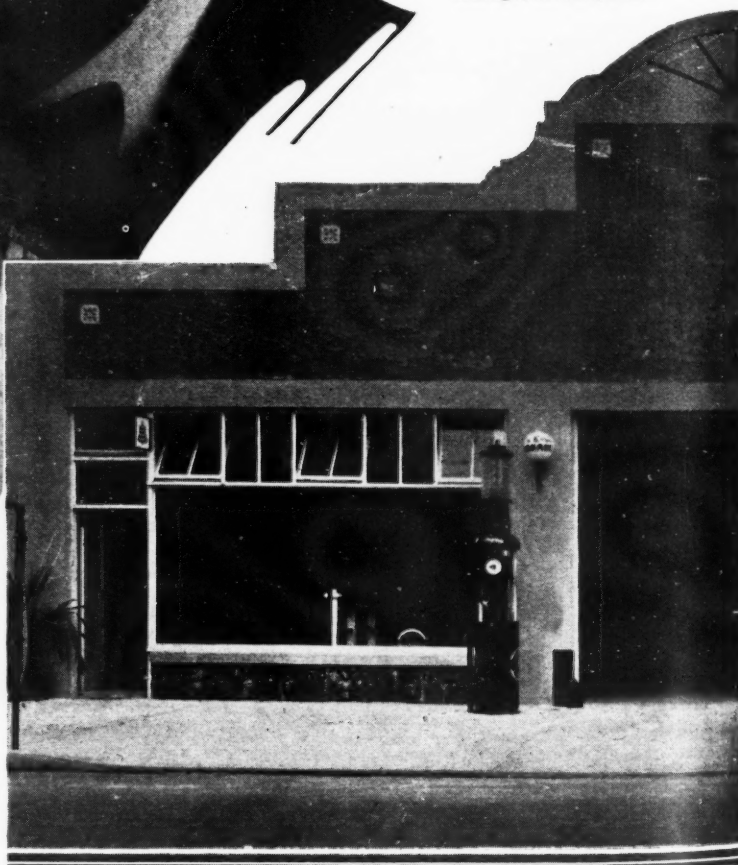


R. M. Gaventa and his In And Out Garage, Miami, Fla.



TRICTLY speaking, this true story of a man who takes the "prize" out of enterprize and puts it regularly in the bank, dates back five years ago, when a certain Simon Legree of an Ohio amusement park wasn't a bit amused. The whips of this kindly Legree, however, were mechanical ones, and the reason he wasn't amused was because few of the so-called slaves of toil were spending a dime for the wily and indirect privilege of putting their arms around the dangerous curves of their sweeties on the dangerous curves of the whip, to the accompaniment of gigglish ohs and ahs and the pleased grin of the man who, in collusion with a gasoline motor, cracked the whip.

A long sentence that, but it is no longer than R. M. Gaventa's, yclept S. Legree, face was that day. For Gaventa, gazing forlornly over the coping to the street, saw flivver after Cadillac and Packard after Buick, going to that country from which no man returneth except to brag of his mileage and his speed; and in his heart of hearts he realized that the many dimes that were to have been his were bound up in monthly pay-



ments on the "new bus;" that, in brief, people were gradually deserting the amusement park, on holidays and Sundays especially, for the highways of the billboards and the low ways of the valley roads. Daily 25,000 people used to visit the park, but that crowd had dwindled to a mere 10,000. His deduction was that most folks preferred to go 'round merrily in their own

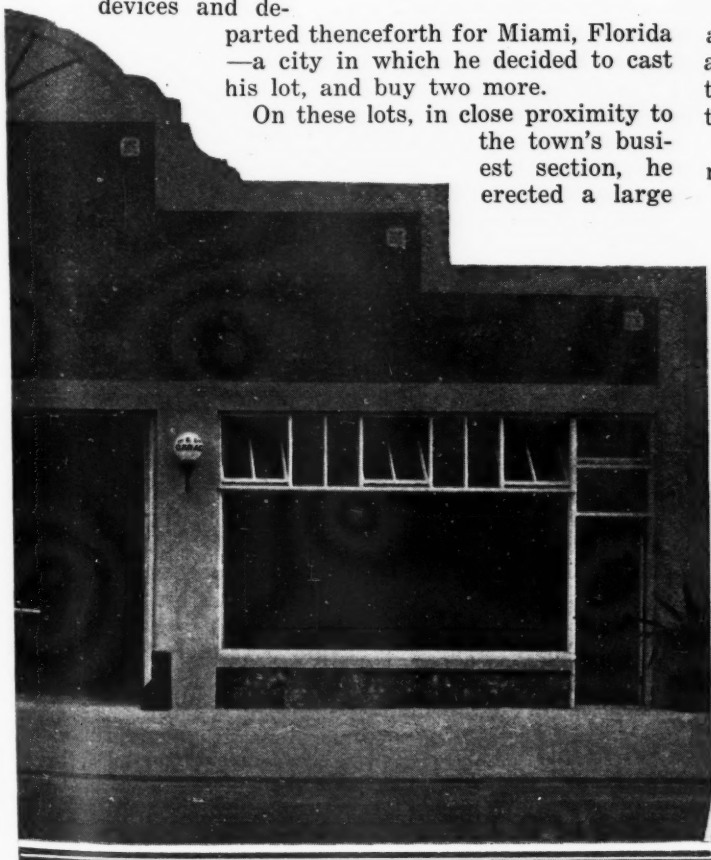
the "Prize" Out of Enterprize

cars rather than to merry-go-round in the parks. This thought was soon succeeded by another, to wit: Then why not leave this business and cash in on one relevant to the great and fast-growing automobile industry?

To think was to act with this gentleman; he sold his whip devices and de-

parted thenceforth for Miami, Florida—a city in which he decided to cast his lot, and buy two more.

On these lots, in close proximity to the town's busiest section, he erected a large



and commodious concrete garage, running through an entire block and, incidentally, his pocketbook. Like everybody's, his was "The House That 'Jack' Built," for it cost him money all right—\$25,000. But a splendid building it was, attractive looking and finely equipped: There was 15,000 sq. ft. of storage space that could comfortably accommodate 125 cars; a sun-lit and well-ven-

*And Putting it in the Bank is Where
This Former Amusement Park Conces-
sionaire Shines. Being Enterprising,
It's Not Surprising*

By Joseph Faus

tilated section provided adequate room for mechanical work; two large wash-racks and an enormous cistern, holding 10,000 gal. of rain-water (best for washing and radiator purposes), were also included; and gas, oil and air pumps were at both entrances.

Gaventa named his the "In And Out Gar-

age." It was, and yet is, Miami's largest, and he set about to make it Miami's busiest—which brings us past the what, when, who and why and down to the how, or the most important, phase of this article.

In answer to my request, genially the proprietor told me the following:

"I was after tourist trade. That's a magic phrase in this resort city—'tourist trade!' The competition in all lines of endeavor is hot and keen but the rewards are rich, and are here every winter season for the having, provided one goes after them aggressively and lingers none on his going. In securing tourist trade that old adage, 'The early bird gets the worm,' may fittingly be applied.

"Pursuant to this determination, while the workers were putting the finishing touches to my building, I visited practically every hotel and apartment house within a radius of six blocks of the garage. Procuring their various rates and items of service, I made a list of them and had it printed on a leaflet with the heading, 'Tourist Hotel and Apartment House Information—Courtesy the In and Out Garage.' Then I had several hundred nice-looking tin road signs made, with the garage name and location and the sentence, 'Full and authentic information regarding Tourist Accommodations given freely. Ask for it.' These signs I posted prominently along the Dixie Highway, north from Miami to Fort Pierce, a distance of 125 miles.

"For our mutual benefit, when I saw the hotel and apartment house managers, we had agreed that we would advertise each other—they, when a guest inquired as to a storage space or repair work for their car, to recommend me; and I, when a newcomer asked about convenient accommodations, to suggest one of them.

"Next, I went to the shipping offices of the several coastwise freight and passenger steamship companies that run twice, or thrice, weekly services from the cities

(Turn to page 42, please)

Taming the "White Ele

San Antonio Used Car Managers Find a Way Out

JANUARY of 1927 saw dealers' inventories of used cars in San Antonio heavy. Used stocks were proving the proverbial white elephants, and San Antonio dealers had a whole herd of them. The problem had become so perplexing that dealers decided it must be solved. A call for cooperative organization met a hearty response. The result was the Used Car Managers Association of San Antonio, an auxiliary to the San Antonio Automotive Trades Association.

Our managers association has now been functioning long enough to venture an appraisal of its worth. While it would be claiming too much to say that it has proved an unfailing remedy for unhealthy used car conditions, yet it is not too much to assert that results brought about through its workings are most encouraging.

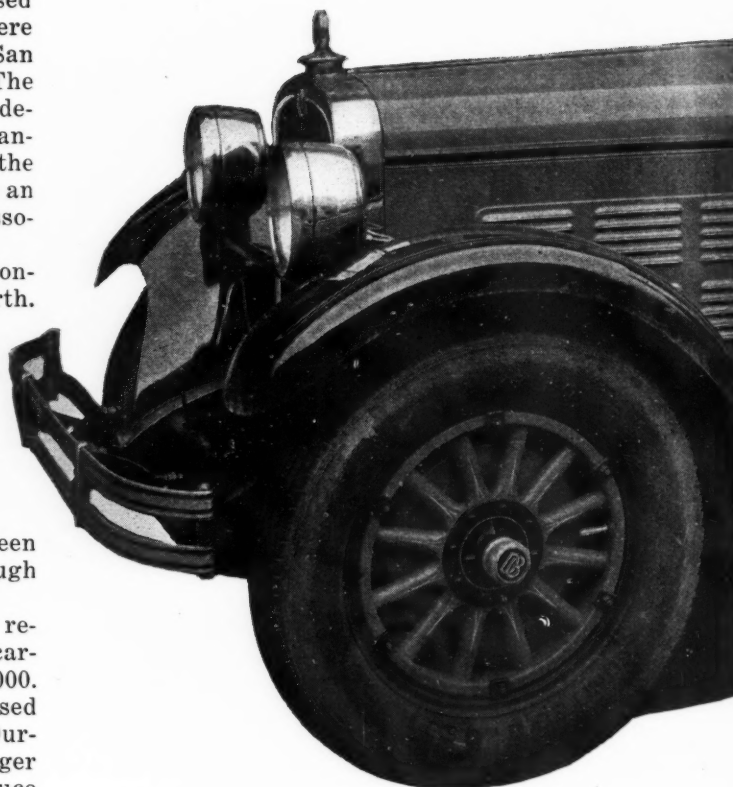
Tangible results in our case are not difficult to run down, and it does not take a spy-glass to be able to see that the used car business in San Antonio is in a much healthier state than it has been for a long, long time. Since facts and figures, though dry reading, are often convincing, here are a few:

Inspection of the ledger pages of one company reveals the fact that in January of 1927 the dealer carried 150 used cars at a valuation of over \$42,000. This same dealership had reduced its number of used cars to 35, valued at about \$11,000, by Nov. 1. During the same period of eight months, the manager of this used car department has been able to reduce his sales force from eight to four men, and yet during this time of eight months or a little less, he moved 635 used cars as against 723 for the entire year of 1926. A canvass of the 25 dealers whose used car managers are associated in the Used Car Managers Association of San Antonio, reveals the pleasing fact that 50 per cent have benefited to the extent of the dealership cited. And the other 50 per cent report beneficial results.

Credit for the following improved conditions can justly be given to the association:

1. Dealers no longer bid against each other for used cars when taking them in on new cars.
2. A schedule of uniform appraisals has been adopted and is religiously adhered to.
3. The dealers have been sold on the idea that the used car managers must have the final word in making an appraisal.
4. The market tone for used cars has constantly improved, and getting rid of the used commodity is not nearly so difficult now as it once was.

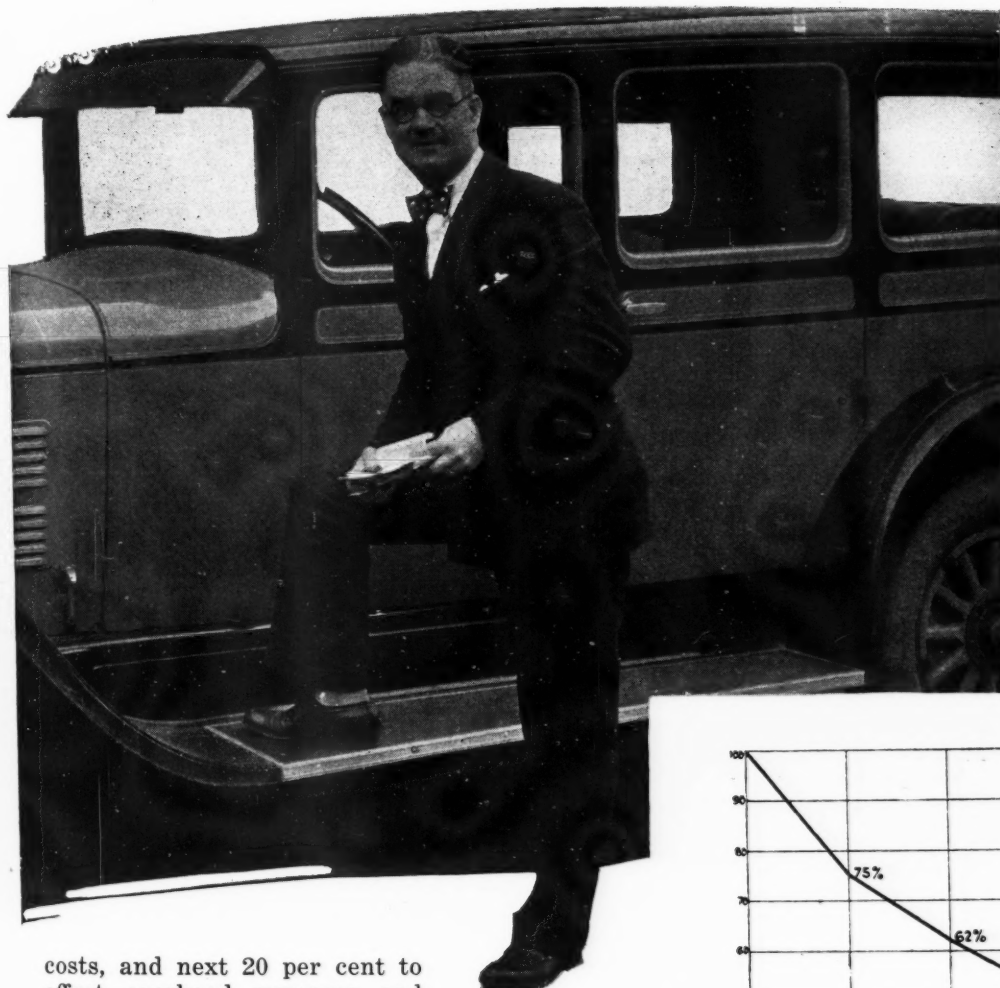
The simplicity of the San Antonio Used Car Managers plan is the paramount reason for its success. To begin with, the weekly luncheons, which are attended by a weekly representation of 90 per cent of



the 25 used car managers who make up the association, are a clearing house for ideas, and they serve as an excellent medium for the thrashing out of friendly differences. Then the joint meeting at the end of each month with the dealer organization keeps the owners conversant with all the workings of the auxiliary. Any grievance, reported at the auxiliary meetings, that involves any person other than the used car manager of the dealership, is brought before the dealer body by the grievance committee, and settled.

After the association got under way, the used car managers set themselves the task of working out a plan for uniform appraisals. Thus was evolved a system that is based upon a depreciation graph. This graph represents a new car as being worth 100 per cent of the new car selling price. For cars not over six months old, 75 per cent is allowed. Then the depreciation line slides down gradually to 12 per cent for a car that is five years old. The chart is applied to the current new car delivered prices in our city, and the figure, resulting from using the percentages, is the amount that the used car is appraised for. From this amount are subtracted all reconditioning

phant" of the Car Dealer

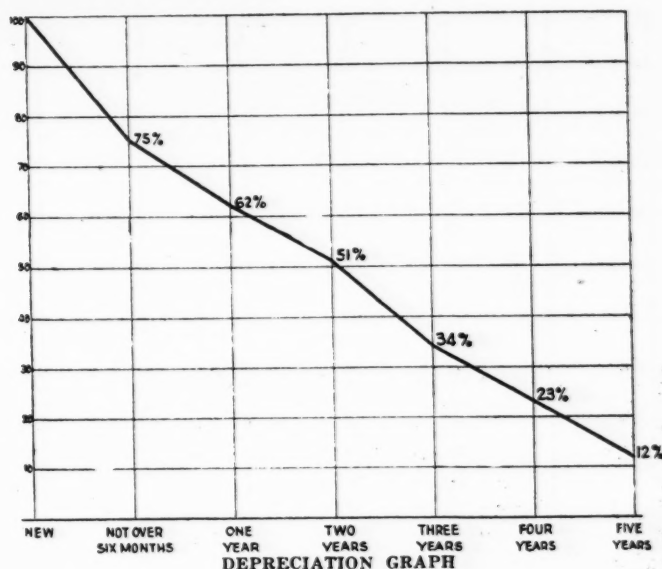


By
Charles B.
Hanavan

(at left)

President, Used Car Managers
Association of San Antonio,
Texas, and Used Car Manager
of Wroten-Hundley Co., Dodge
Distributor

The depreciation graph represents a new car as being worth 100 per cent of the new car selling price. For cars not over six months old, 75 per cent is allowed, and then the depreciation line slides down gradually to 12 per cent for a car five years old.



costs, and next 20 per cent to offset overhead expenses and selling costs is deducted. After these deductions are made, the amount remaining is what the dealer will give on a used car.

As an illustration, take a used car one year old that sells in San Antonio at \$2,000 delivered. Upon referring to his chart, the appraiser finds that this car should sell for \$1,240. But suppose that it takes \$80 for reconditioning the car. This amount is deducted, thus leaving \$1,160. From this amount is subtracted 20 per cent for overhead and selling charges, leaving \$928, the amount that is allowed the owner on a trade-in.

As we accepted this system of appraisal, it became necessary for us to know the current delivered price of every model on the market in San Antonio so that we could use the plan. And so we compiled a loose-leaf booklet, vest-pocket size, that is subject to constant revision. This booklet lists the delivered prices of all models and also gives for handy reference the name and telephone number of each used car manager.

And the beauty of our system is that it really works. A strong enough spirit of cooperation has been built up to cause the used car managers to work together for uniform appraisals. To a great

extent the "shopping around" evil has been cured. When a used car owner comes in and says he has an offer of so much more for his used buggy than our appraisal chart shows that it should be worth, we quietly step to the telephone and ascertain if the offer was really made.

There are times, of course, when a dealer may depart from this schedule in taking in used cars. But in such instances he usually tells the owner frankly that the figure offered is above that of strict appraisal, and he has the chart there to prove his statements. A case of this kind sometimes arises when new models are about to be introduced. In order to close out old

TAMING THE "WHITE ELEPHANT" OF THE CAR DEALER

models, a dealer may give more for a used car than its appraisal value. In getting new models to selling, the same practice may be resorted to. But in each case, the appraisal is not increased to meet the situation. Instead the dealer makes it plain that the new car is being sold at a discount rather than create in the mind of the user car owner a false impression of the value of his used commodity.

So much for the buying end of our associated activities. Better buying makes, of course, easier selling. But in the main each dealer is left to dispose of his used units the best he can. We know, however, that through cooperative effort we have created a healthier market for used cars than ever prevailed here before. This has been brought about by inspiring greater public confidence in the used cars sold by members through cooperative advertising.

Each Sunday, in one San Antonio newspaper, we carry one or more pages devoted exclusively to the used car advertising of new car dealers, members of our organization. The page carries a heading that lists the 25 members of our association and states that the advertisements are those of the Used Car Managers Association of San Antonio. The layouts of the individual ads are made up to jibe with the wishes of the dealers buying the space. Occasionally, we run a cooperative page that talks up our organization. All expenses of cooperative advertising are borne by the association.

The San Antonio newspapers have very live and up-to-date Sunday automobile sections, and they have been generous in giving us space. This publicity is valuable, and has aided us very much.

The messages that head our advertisements are changed from week to week, but all put over the message of honest values in used cars, fostered by the Used Car Managers Association of San Antonio. One of the first headings that we used was run under the caption of "Warranted Used Car Values at Right Prices," and read as follows:

"The days of uncertainty in used car buying are a thing of the past. The buyer of today has learned that he may expect the same service per dollar from a 'used car' as that of a new car. The recognized dealers of the present era are aware of this attitude and are just as eager to place used car merchandising upon this basis as is the buyer. The advertisements upon these two pages are all of the New Car dealers who have GOOD USED CARS to sell you. These firms are members of the Used Car Managers Association of San Antonio, and, as such, have pledged themselves to the safe, sane and REASONABLE merchandising of Used Cars. You may select and buy from any of them with the assurance that YOU WILL BE SATISFIED WITH YOUR PURCHASE."

These weekly pages are valuable to us in that they place our prices upon candlesticks, thus keeping the "gyp" dealer in the background. They also protect the used car buyer as to prices asked for the different models and types because such are correctly priced. The days of horse trading have passed. Our plan calls for merchandising of the used cars on the same basis as new cars. We advocate the car price being worked in plain figures, all cars being guaranteed for 30 days unless sold "as is."

Organizing is one thing; continuing the organization by adhering to the policies which prompted the organization is another thing. From time to time we have occasional backfires—mainly from the new car managers, who, in their enthusiasm for the moving of new units may wish to raise appraisals. But, as has been intimated, these are worked out by our grievance committee at the monthly meetings of the auxiliary with the parent organization. Only recently, the dealers went on record anew as pledging themselves to live up strictly to the uniform system of appraisal that we have worked out. Of course, no system of this kind could be successfully worked without the cooperation of the dealers and owners. We are glad to say that we have that cooperation.

Can You Do What You're Told to Do?

(Continued from page 32)

he has his good days and his bad days. *If he were at his highest point of productiveness every day, there's no doubt in my mind that a so-called star salesman could sell more machines with his own sales talk than he could with the one that the company makes him learn. But being human he can't make 12 calls daily, day after day, give his five or six demonstrations, and have each sales talk as good as his best might be.*

"That where this studied, cut and dried talk comes in. If it were physically possible for him to get 10 audiences a day, his last sales talk would be as effective as his first *because it wouldn't vary in any detail.* And the law of averages would work exactly as the company tells us it does and as you will find out that it does if you stay with us long enough to get a good start.

"You will also find the law of averages working in your favor with regard to the company's policy of making us turn in 12 bona-fide reports every day," continued the old man. "You may have noticed that nothing is said as to how many demonstrations you are supposed to make. That is because the company has found out that there is no need for setting a definite demon-

stration quota. *If the 12 daily calls are made, the demonstrations are bound to average four to the day and the sales slightly better than one in every eight calls.*

"The reason so many fellows start off well and then fall down is because they think they know more than the company does. Using the sales talk, they go like wildfire for the first few days. Then they get chesty. They start using their own sales talk. *They forget the psychological points that actually have sold machines and will continue to sell them.* In a few weeks they're disgusted and the next we hear of them, they've already had two or three more jobs and made good in none of them.

"They simply can't deflate their egos to the point where they can realize that somebody else may possibly know more than they do. They're too bright.

"I hope you're going to follow instructions," concluded the old man, as we drew up at the office.

I have. To the letter. And the results have been more than satisfactory. That's all there is to the story, except that next week I'm going to Chicago as assistant manager of the territory.

Reo *Heralds* 1929 Flying Cloud



*Front-end view of the 1929
Flying Cloud brougham*

A NEW Long clutch embodying a torsional vibration damping mechanism, rubber spring suspension and oiling system improvements feature the mechanical changes in the 1929 Flying Cloud announced by the Reo Motor Car Co.

Bodies are based in design on the previous models but have been improved through detailed attention to such parts as radiator shell, lamps, hardware and molding treatment. Radiator shells are narrower and deeper than formerly, and are fitted with a flush type radiator ornament. On the sedan and victoria body models a triple molding system is used on the body panels.

For easier steering the steering wheel has been enlarged in diameter with the grip made narrower. Wind guards are fitted to clutch and brake pedals to stop drafts. A new idea in oil gages is provided on the dash of the new models. This consists of an oil depth gage in addition to the regulation pressure gage. The depth gage is in the form of a button balancing the choke button on the instrument board. As long as the

crankcase is full of oil the button cannot be pulled out. When it can be pulled out part way the level has dropped to a point where it is necessary to add more oil. When it pulls out all the way immediate attention is necessary.

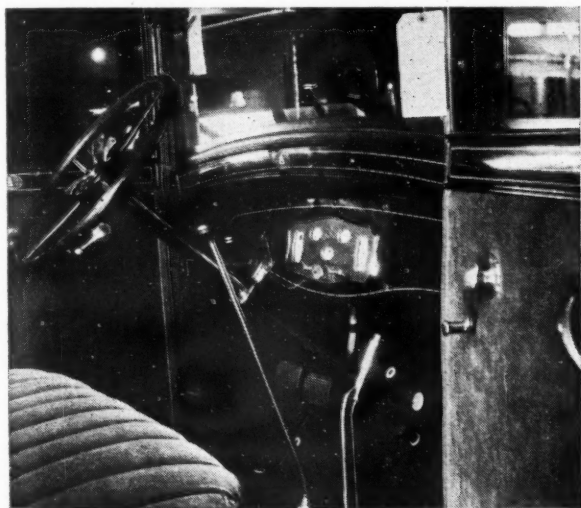
Further improvements in the oiling system include the increase in size of the oil pump and the provision of an oil filter located between the pump and the main bearing so that all oil normally passes through the filter.

Among other minor changes is an increase in size of the torsional damper at the front end of the crankshaft. Springs are now mounted in rubber blocks which, with a reinforcement of the front end of the frame, is claimed to have eliminated shimmy and tramping.

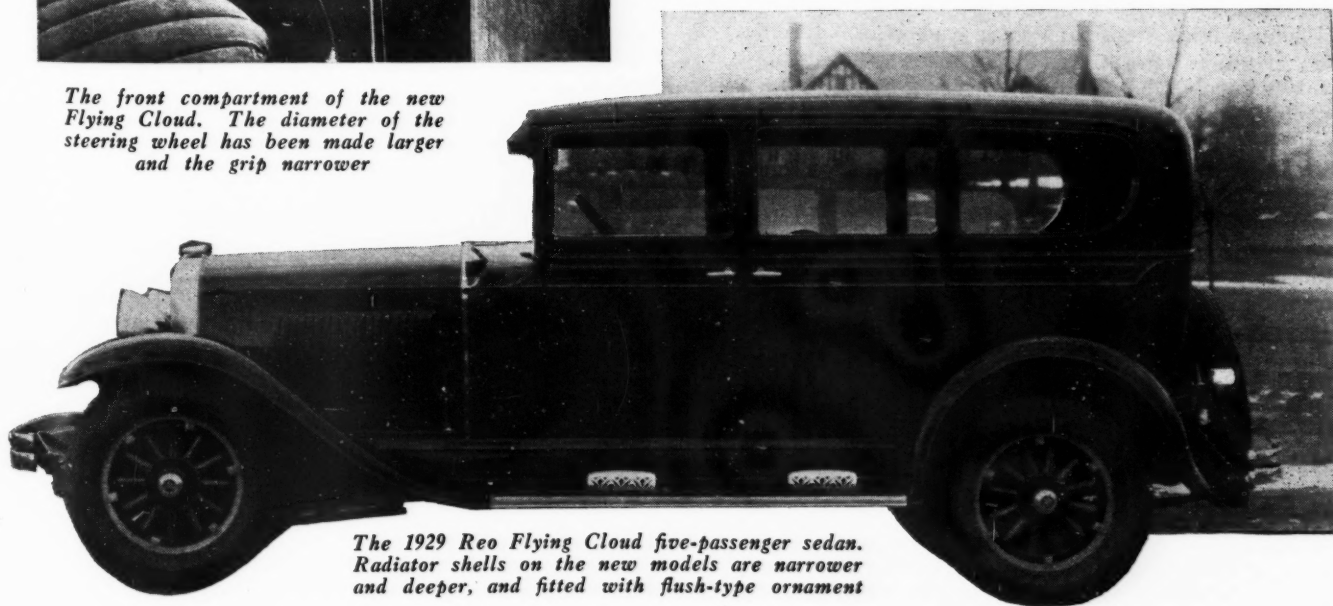
Included in the standard equipment are dash water thermometer, dash gasoline gage, hydraulic shock absorbers, bumpers front and rear, windshield wiper, rear view mirror, combination tail and stop light and coincidental ignition and transmission lock.

Five body models are offered—a five-passenger, four-door sedan, two-door brougham, four-passenger victoria coupe, two-passenger rumble seat coupe, and rumble seat sport roadster.

Tires are 30 x 6.20 balloons on 18 x 4 in. rims. Spark plugs are 18 mm. standard size. Gear ratio has been stepped down somewhat, optional ratios now being 4.42 and 4.08 to 1, compared with 4.58 to 1 formerly.



*The front compartment of the new
Flying Cloud. The diameter of the
steering wheel has been made larger
and the grip narrower*



*The 1929 Reo Flying Cloud five-passenger sedan.
Radiator shells on the new models are narrower
and deeper, and fitted with flush-type ornament*

TAKING THE "PRIZE" OUT OF ENTERPRIZE

(Continued from page 37)

New York, Baltimore, Philadelphia, Charleston and Jacksonville, to Miami—the southern terminus. There judicious investment with likable men 'on the ground' assured me that they would make every effort to advise as many as possible of the disembarking passengers, who possessed cars, that the In And Out Garage was an excellent place in which to keep their machines, and so forth. This same arrangement I also made with a man at the railroad office.

"Completing all that, I placed my advertising card in the automobile sections of the two daily newspapers, to run regularly and indefinitely; then I hired some competent mechanics, car washers and a bookkeeper—and opened my doors for business. That was four years ago," he added, "and they haven't been closed since."

This showed that the sheriff had been very lenient or the business extremely good, I ventured, and Gaventa smilingly explained it was the latter.

"My polyglot advertising bread cast on the waters came back as cake," he said. "Car after car rolled in, that first month of November; they increased in number in December, and by the last of January at 3 o'clock in the morning the night man could waltz around and count 125 of them on the floors. Some of my customers came as the result of the discreet suggestions of the men at the docks, some from the tacit advice of the hotel clerks; but most, I think, were those who had personally driven down from the north and had seen my road signs along the highway or else my card in the newspapers. It was these last with whom my printed leaflets came in handy, and they not only appreciated the information therein but took advantage of it."

"These folks that park their cars here," I remarked, "do they take advantage of your other services?"

"Oh, surely," he rejoined. "Once a garage-owner who specializes in storage, as I do, secures some patrons he may rest assured that the other needs he will usually supply. At least every two weeks practically all the owners have their cars washed, polished and, sometimes, greased. The automobiles, incidentally I should mention, are the higher-priced ones—Cadillacs, Lincolns, Rolls-Royce, Pierce Arrows and so forth. We have standing orders with a few to keep their machines spick and span all the time. Also, when any need tire or engine repairs we are called on for the jobs; and of course we sell them nearly all the gas and oil they use. However, I don't keep accessories or tires, although I do act as an agent for some dealers and thus earn a little extra in such manner."

"These various services mean how much money to you?" I asked.

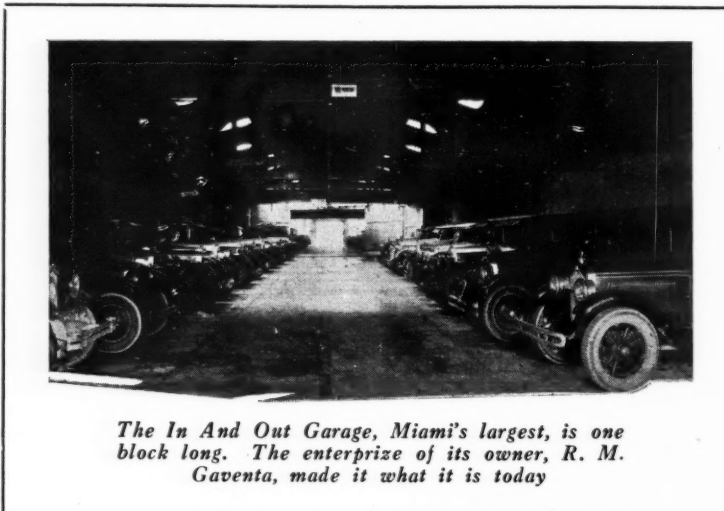
"Approximately \$5,000 a month for the winter season, which is December, January, February and March; but in summer my trade dwindles 50 per cent, the remain-

ing five months about 30 per cent. I have local customers but my chief source of revenue is the tourist. Many of my winter patrons return, but at the same time I still have good use for my hotel and freight office aids; and I always advertise in the papers. Even with 125 cars on the floors I never relax, sit back and regard the universe as my bivalve—for oysters are slippery! A customer is here one month and gone the next. In times of plenty," he philosophized, "it is best to prepare for panic; a wise man keeps his eye on the bird in the bush even if he has one in his hand."

"I charge \$25 a month for storage in the winter," he returned in answer to my specific query, "and \$18 a month other times—\$2 for washing a car, \$1 for polishing, and 50 cents for shining the silver and nickel-work. I have, in the busy season, three mechanics, two floor, or service men, two wash-rack men, and the usual book-

keeper. All work is cash; a pawnbroker may live off the flat of the land but I can't. Tourists prefer to pay cash anyway.

"My garage when full represents a monetary valuation of nearly a half-million dollars, and so it is insured, and, of course, equipped throughout with modern fire-extinguishing machines. I have an innovation, though, and that is that below the pan of every car I have placed a quantity of pure white sand, which not only absorbs the oil drippings but will come



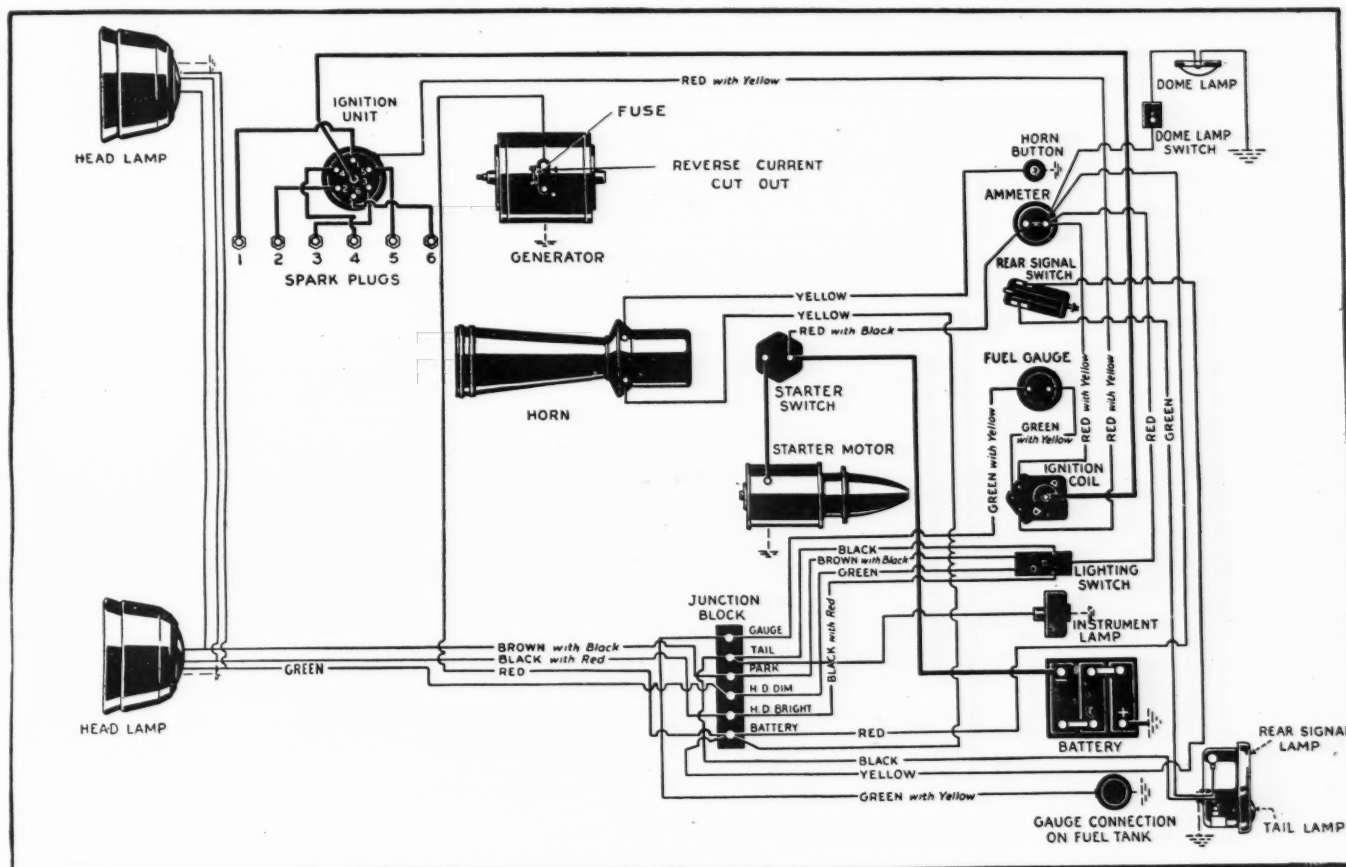
The In And Out Garage, Miami's largest, is one block long. The enterprize of its owner, R. M. Gaventa, made it what it is today

in handy in case of an engine catching afire.

"Most storage places, reluctantly I state, have as their slogan, 'Pack 'em in!' They value their space not only wisely but too well; cars are packed in like sardines in a tin. Scratched doors, scraped sides, soiled clothing, annoyed exclamations and lost customers are often the result of such a policy. A roomy space of 2 ft. I allow on the sides of every machine—adequate range in which to move around, open the door wide, and get in. That people appreciate this thoughtfulness I know, for they tell me so.

"I demand one positive thing only from my employees, and that is that they always be polite to the trade. Laziness and incompetency I can sometimes forgive, but never rudeness. The worker who snarls out, 'That will be \$8, mister!' will retrograde, while the worker who smiles and says, 'Ten dollars, please,' will go forward. Not that I advocate charging for courtesy! But I do think that the public will actually pay for such affability by going to the garage that extends polite treatment and consideration, even if it may charge a little more than its rival that does as efficient work but whose staff is careless in words and attitude. A garage is known by the employees it keeps," he paraphrased, and then smilingly concluded, "we can't all be Mona Lisas or Lord Chesterfields but we can, with profit, do our darndest to imitate them!"

Electrical System of Dodge Victory Six



NORTH EAST electrical equipment is used on the Dodge Brothers Victory Six. This includes a type 6390-A generator, which is attached to the back of the timing chain case at the right side of the engine. This generator is mounted by means of a standard S.A.E. mounting flange and studs and can be moved pivotally on the lower mounting stud to secure correct timing chain adjustment. It is driven at 1.166 times engine speed through a laminated type coupling. The direction of rotation is clockwise looking at the drive end. This generator has characteristic third-brush regulation. Brush pressure should be 12 and 16 oz.

The standard output setting at 1400 r.p.m. is 14 amp. at 8 volts when the generator is hot. The generator begins to deliver current at about 600 r.p.m. and produces its maximum output at 1400 r.p.m. Following are output values at 8 volts at various armature speeds:

R.P.M.	Amperes	
	Cold	Hot
800	8.	6.
1000	14.5	10.5
1200	17.5	13.25
1400	17.5	13.75
1600	16.75	13.5
1800	15.5	13.
2000	14.5	12.
2400	12.	10.5

The third brush is adjustable by means of a pinion the shaft of which extends outside of the commutator

end housing, making it unnecessary to remove the cover band to make adjustments. Turning the pinion in a clockwise direction increases the output, the output being decreased when this pinion is turned counter-clockwise. Spring tension is used to hold the third-brush plate in position.

The type 6404 starting motor is used and is mounted on the left side of the engine by means of a No. 1 S.A.E. mounting flange. The starting motor turns in a clockwise direction, looking at the drive end and cranks the engine through an Eclipse Bendix drive. The starting motor is of the two-brush type and has four field coils. It is grounded internally at one of the brush holders. The spring tension at the brushes is about 3 lb. The starting motor needs no lubrication as the armature is carried on oil-less bearings. On test this starting motor delivers a stall torque of 16 ft. lb. at 550 amp. and 3.1 volts. Running free it draws 120 amp. at 5.6 volts at 1700 r.p.m. The following specifications should be useful in making starting motor tests:

R.P.M.	Amperes	Volts	Torque
Stalled	550	3.1	16.
300	425	4.	11.9
600	320	4.5	8.25
900	245	4.9	5.75
1200	180	5.25	3.9
1500	140	5.5	2.4

(Turn to page 49, please)

HELP THE MECHANICS TO HELP THEMSELVES

(Continued from page 29)

the jobber is given a better price on most items than if he bought them through other sources. Further than that, it is customary for the jobber to extend credit for a period of thirty days and sometimes more. This is the great advantage in helping the service men to keep their tool equipment in good condition.

Most mechanics prefer to buy their tools when they need them and pay for them a little at a time. The plan of paying 25 per cent of the bill each week meets with the approval of most mechanics. As all automotive jobbers extend 30 or more days' credit, employers and employees can buy to advantage.

Many employers have been quick to appreciate that by ordering for their men, they assist them to get the discount and the advantage of 30 days' credit, and that the mechanics' instalments meet the bill in full before it comes due.

In other words, so far as the employer is concerned, the mechanic actually pays in advance for the tools he ordered and from the mechanic's angle, liberal terms have been extended.

George W. Fleming, of the Fleming Machine Co., of Worcester, Mass., has developed an automotive mechanic's tool order. This tool order is designed to assist the mechanic to buy tools to best advantage and, at the same time, to protect the employer in every way. On the face of this order there is a space provided for the total amount of the bill. Immediately following that there is another space in which the amount the mechanic wishes to pay each week is placed. This order also includes a space in which mechanics' payments are recorded so that when the payments are completed, the entire record is carried on the one order.

While these advantages to the employer are great, and many have seen the wisdom of helping their men to buy through reliable sources, there still are some who have overlooked the benefits.

A recent investigation of some 200 service stations has disclosed the following fact. The average hand tool investment in service stations is \$897.41 per establishment. The average annual expenditure for hand tools

in each of these service establishments is \$237.83.

Among the mechanics it was found that the approximate value of the total tool equipment owned by the average mechanic was \$76.28. In order to maintain this and to add to it, the average annual expenditure on the part of each mechanic is \$33.77.

Following are the tools usually bought by mechanics for personal use and the percentage of the mechanics' kits in which there were found by the investigator: Open end wrenches, 95 per cent; socket wrenches, 85 per cent; 5 in. pliers, 99 per cent; 7½ in. pliers, 76 per cent; screw drivers, 90 per cent; side cutters, 72 per cent; adjustable end wrenches, 61 per cent; hand drill, 12 per cent; set of twist drills, 10 per cent; hack saw, 66 per cent; feeler gage, 78 per cent; screw pitch gage, 35 per cent; hammers, 97 per cent; soft face hammer, 21 per cent; valve lifter, 80 per cent; cotter key puller, 77 per cent; valve lapper, 47 per cent; ring compressor, 64 per cent; bearing scraper, 84 per cent; files, 68 per cent; punches, chisels, etc., 87 per cent; pipe wrenches, 54 per cent; micrometers 17 per cent; reamers, 9 per cent; spark plug wrenches, 85 per cent; ⅛ in. iron pipe tap, 14 per cent; 5/16 in. S.A.E. tap, 14 per cent; ⅜ in. S.A.E. tap, 10 per cent; 7/16 in. U.S.S. tap, 12 per cent; tap wrench, 16 per cent; 6 in. steel scale, 73 per cent; 12-in. combination square, 76 per cent; Ezy-Out, 34 per cent; snips, 60 per cent; putty knife, 97 per cent; wire brush, 83 per cent; oil stone, 57 per cent.

Mechanics generally appreciate the size of their tool inventory and the expense of maintaining it. Consequently, they are highly appreciative of cooperation from their employer that assures them better tools at a saving.

Employers are more and more recognizing that a well-balanced, profitable service station is impossible without mechanics who are properly equipped.

And automotive jobbers, appreciating the large potential business in small tools, have done everything to merit 100 per cent of the service station's small tool business.

Little Joe Throws a Selling Natural

(Continued from page 27)

idea, or take the car in at my own allowance price.

"This method has enabled me to get clean repeat orders and has given me a good standing in our used car department. The boss won't go broke on the used cars I bring in.

"Besides, it brings our customers closer to us and inspires them with greater confidence in our house and our car.

"The other way is to call on an owner, ask him to buy a new car, and then have him spring immediately the question of an allowance, before he is anxious to own the new car. You get him a trade-in price and he hits the ceiling, telling you what a fine automobile his present car is. To justify your figure, you practically have to tell him that his car is only several degrees removed above a piece of junk.

"It has always seemed to me inconsistent, to say the least, to speak so disparagingly of a product that was described to the owner at the time of its purchase with

enthusiastic praise, particularly when that praise was warranted by the goodness built into the car at the factory.

"That's the reason I do it my way. I don't know whether your readers will be interested or not. In fact, I don't give a damn. It's selling cars for me, and that's what I'm interested in. That's my story and I'm going to stick to it."

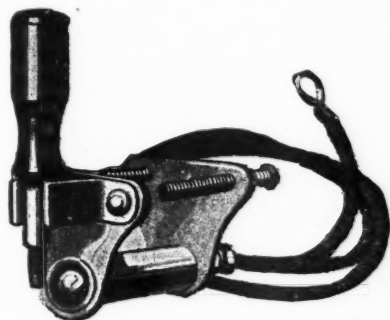
Florida Tire-Tube Tax Held Valid

That the new law taxing the sale of automobile tires and tubes in the State of Florida as passed by the Florida State Legislature at its 1927 session is constitutional and valid, is the substance of a decision just handed down by the Florida Supreme Court in Tallahassee, reversing a decision of the circuit court of Hillsborough County, which has declared the measure unconstitutional. Unless an appeal is taken to the United States Supreme Court and this body reverses the Florida Supreme Court, which is very unlikely, dealers handling tires and tubes in Florida will now be required to pay this tax.

New Accessories for the Trade

Electric Lighter

A QUICK, sure light for cigar, cigarette or pipe, is provided by the new Carbo-Liter. There are no moving wires, automatic switch or filaments in this lighter. The lighting is good for from six to 12 months of service and extra elements may be purchased at 10 cents each, or three for 25 cents. Carbo-Liter attaches on the



dash by means of a pair of set screws. The portable lighting element fastens in a clamp. Contact is made with the electrical connection—resulting in a white-hot glow. The glowing element can be passed around the car conveniently. This new lighter is manufactured under Garl Patent No. 1,410,176 by the Rid-Ged Grip Co., makers of the Rid-Ged Grip steering wheel tires. This company is located at Akron, Ohio.

Portable Extension Cord

THE Belden Cordlite as shown in the illustration is a new portable extension cord and light offered by the Belden Manufacturing Co., 2300 S. Western Ave., Chicago, Ill. This Cordlite consists of a 25-ft. all-rubber cord.



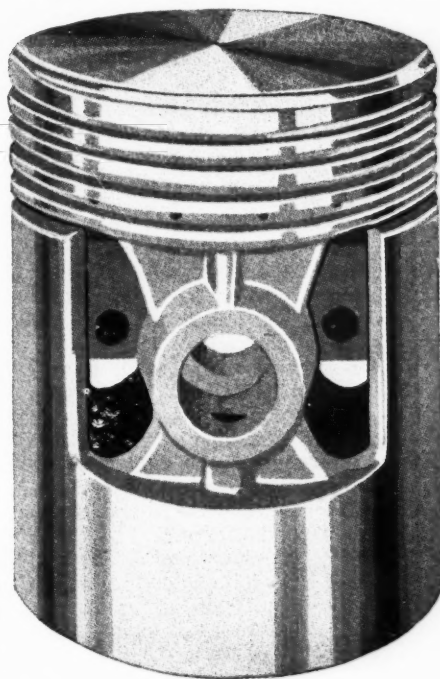
On one end is attached a soft-rubber plug which will not break under the

hardest usage. On the other end a soft-rubber safety handle with socket guard and shade is attached. This soft rubber handle prevents shocks. The list price is \$6.50.

Bohnalite Pistons

BOHNALITE pistons, the light alloy pistons with the steel "Backbohn," are manufactured exclusively by the Bohn Aluminum & Brass Corp., of Detroit, Michigan. This statement is made in correction of a recent item in MOTOR AGE, which erroneously credited another company with the manufacture of Bohnalite pistons.

As is well known to the trade, the

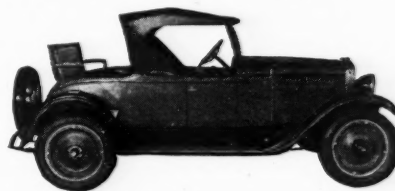


special alloy steel "Backbohns" of Bohnalite pistons are cast in, to control expansion and to maintain satisfactory clearances under all engine operating conditions.

Sport Rumble Seat

THE Hampden Auto Top & Metal Company of Springfield, Mass., is making a sport rumble seat for coupe and roadster models of a number of prominent makes of cars. By the use of these rumble seats two additional passengers may be carried without crowding the driver or sacrificing storage space. The seats are made to blend with the design and finish of the car, and have deep cushions covered with leather for durability and comfort. The manufacturer states that these seats

may be easily and quickly installed without special tools. The price is \$25



for the least expensive seat, but prices vary according to make and model.

In addition to the rumble seat this firm is also offering a new rumble seat top, such as shown in illustration, which



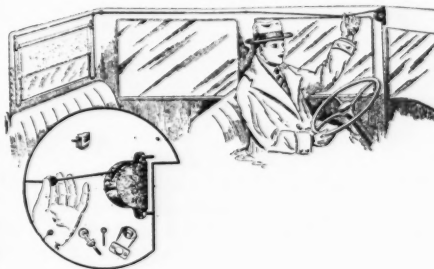
forms a complete cover for the rumble seat. The prices of these tops are \$15 for the lowest priced type.

"Hot-Hed" Cigar Lighter

IN describing the "Hot-Hed" Cigar Lighter in the March 1st issue of MOTOR AGE a typographical error was made in the price. This cigar lighter, which is manufactured by the North East Electric Co. of Rochester, N. Y., sells for \$2.50, but in the description the \$.50 was omitted.

Pull-A-Shade

THE Pull-A-Shade operates the rear curtain from the driver's seat and fits any closed car. It consists of a box, made of bakelite with walnut finish, which is fastened by two screws on the frame of the body above the windshield. A fine cord runs from this box over



small pulleys on the inside of the body to the back of the car where it is attached to the curtain on the rear window. This is manufactured by the Ren Mfg. Co., Main Street, Winchester, Mass.

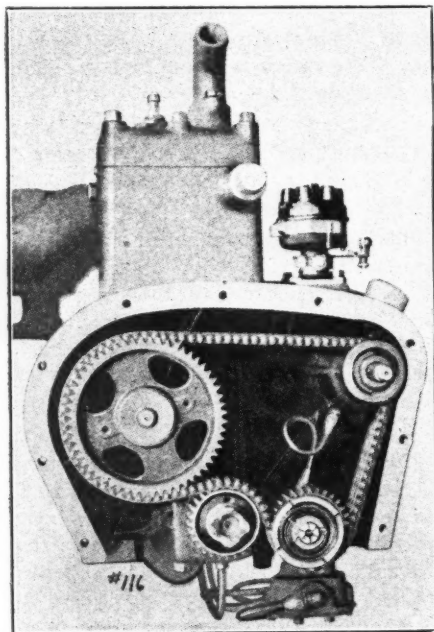
READERS' CLEARING HOUSE

Questions Answered By C. Edward Packer

Jewett Chain Tightener

I would like to ask several questions in regard to the front chain drive on a 1925 Jewett. In regard to the chain having an eccentric spring for take-up, how tight should the spring be drawn up? Also, why are there six slots in the shaft for one end of the spring and four in the outer ring of this take-up mechanism? What would make the spring break? The pawls and ratchet behind the eccentric bushing look all right, but when the chain breaks the timing skips. Should not the ratchet be able to hold that? Any information will be gladly received.—Wolf's Garage, 378 E. Delevan Ave., Buffalo, N. Y.

THE spring in this take-up should be wound $1\frac{1}{2}$ to two complete turns. The six slots in the one member and four in the other are, of course, for



convenience in getting an exact adjustment on the spring tension, but we cannot say just why that particular number is selected for each part. Winding a spring too tight is probably the most likely cause of spring breakage, as well as premature chain wear. It is not the purpose of the pawl and ratchet to prevent the ignition from getting out of time when the chain breaks.

What is Pennsylvania Oil?

I have asked several salesmen the question "What is Pennsylvania Oil?" and not one of them has been able to give me a satisfactory answer. Most of them say that it is oil made from crude that comes from Pennsylvania. On inquiring further I was told that there is not enough oil produced in the State of Pennsyl-

vania to supply the City of Pittsburgh alone. Looking in an oil magazine I found that the production of crude oil in six or seven other states was considerably higher than the production of the State of Pennsylvania. I understand that there are two kinds of crude, one asphalt and the other paraffin base and that paraffin base crude comes from the Pennsylvania district. Why then does one manufacturer who uses a paraffin base crude not call his oil Pennsylvania oil?—C. D. Kauffman, Bellaire, Mich.

YOUR question is interesting and due to the great importance of correct lubrication, is worthy of careful attention. The subject of Pennsylvania oil is not always clearly understood by most people. Admittedly, the amount of crude obtained from the State of Pennsylvania is relatively small. However, Pennsylvania oil is made from crudes taken from the Appalachian field and this field covers a lot of territory. It reaches from New York to Tennessee. Between these extremes it includes parts of Pennsylvania, Ohio, West Virginia and Kentucky. From this territory so-called Pennsylvania crude is obtained but it may vary decidedly in its characteristics.

We are showing a map taken from T. A. Boyd's book "Gasoline." To quote Mr. Boyd—"Pennsylvania, where the first oil well was drilled in 1859, yielded nearly all of our petroleum for 25 years thereafter. But now less than 5 per cent of the oil produced in the United States is obtained there."

You will appreciate that as Pennsylvania is the first state to supply oil and that as the population of the United States was concentrated in the East, it was entirely logical to depend on the Pennsylvania fields for oil.

There is no doubt that Pennsylvania crudes contain many desirable characteristics. On the other hand, one should not conclude that merely because an oil is a Pennsylvania oil that it is superior for all uses. Many oil refiners find that, in order to develop the most desirable lubricant for certain purposes, it is necessary to blend the crudes from different fields. While the selection of a crude is important, the refining is even more important. It is entirely possible to take perfectly good crude and utterly ruin it in the refining process, the same as it is possible to take perfectly good food and ruin it in the cooking. It is quite possible that the oil refiner you speak of as having a paraffin base oil does not choose to call it a Pennsylvania oil for that reason. He probably recognizes that there is more to a quality lubricant than merely first-class crude.

It is obviously impossible here to publish what has taken years of research on the part of lubricating engineers to learn. The production of high-grade lubricants is of great importance and we are fortunate to be able to depend on the oil industry for this. Practically speaking, it is most profitable to the service station and most satisfactory to the car owner to depend for lubricating oil upon an oil refiner of unquestioned integrity. Car manufacturers and oil refiners have reputations to maintain. In the selection of an oil we would recommend following the charts of recommendation of the refiners of high-grade lubricants, rather than attempting to determine by analysis or specification characteristics of any particular batch of oil.



[READERS' CLEARING HOUSE]

Knock May Come From Rear Axle

We have a late '26 Model Chevrolet which has a slight knock. This is more noticeable with open throttle when the car is in second gear, but it can be heard any time when the clutch is in and the engine is pulling. When the clutch is disengaged the noise stops. We put in new type clutch collar. The clutch springs and lining seem to be good. The transmission has been taken down twice and the gears, bearings and bushings are good. We put in a new universal joint with no result, so we are at a loss. Please advise us as to what can be causing this knock.—Florida Subscriber.

WE greatly doubt if the knock is in the clutch or transmission. If the knock is a rather heavy thump occurring when the car is pulling hard, it is most likely an indication that a main bearing is loose. If it is a lighter tap occurring when the engine is pulling, it is most likely in a wrist pin. One way that you can entirely eliminate the transmission as a possible cause of the knock is to set your brakes and put the transmission in high. Then, by slipping the clutch so as to place a load on the engine, if you get the knock you may be sure that the trouble is not in the transmission or drive line. If by chance you do not get the knock it would indicate that the trouble is in the rear axle and we would suggest that you open up this part and inspect the pinion and ring gear, for a faulty tooth or bad pinion bearing would cause a knock which could be heard at the engine. Such knocks are often very deceptive. Due to the facility with which a rear axle knock can be transmitted to the transmission or engine, these latter parts are frequently blamed for noises emanating from the rear axle.

Essex Engine Speed

Please tell me the speed the latest Essex engine turns over at full speed.—Tim Bancroft, 311 Franklin Street, Cedar Falls, Iowa.

THE peak speed of the new Essex engine is 4000 r.p.m.

Connecting Ford Carburetor to Transmission

Will you please advise me whether there is any objection to taking the intake air for the carburetor through the crankcase from the breather back to the transmission cover and thence to the carburetor on a Model T Ford, with or without an air cleaner at the breather. That is, I wish to draw the carburetor air from the transmission cover.—J. A. De Pew, 3114 Emmans Ave., Zion, Ill.

WE would not advise drawing air through the crankcase of the Ford unless an air cleaner were fitted to the

air intake. The absence of an air cleaner would result in the accumulation of a great amount of dust and dirt in the Ford crankcase which, in turn, would hardly consider it advisable to cylinder walls and bearings. In fact we would hardly consider it advisable to take all of the carburetor air through the crankcase for the reason that there is a great deal of oil vapor in the crankcase, and particularly so in the Ford. Consequently this might result in excessive oil consumption as well as excessive carbon deposits. For breaking in new engines, however, or for use in extremely heavy duty running, there would probably be a real advantage in having some of the oil vapor drawn into the combustion chamber, but we would not recommend taking all of the air in in that manner.

The Eight-Cylinder Oakland

Did the Oakland people ever build an eight-cylinder car? If so, in what year? —Dr. E. A. McGreu, The Halstead Hospital, Halstead, Kansas.

IN 1916 and 17 the Oakland organization built the Model 50 which was an eight-cylinder car.

Bad Axle Makes Transmission Noises

I have a Chevrolet truck in the shop that we are having a little trouble with. This truck sounds as though there were some stripped gears in the transmission, but I have had the transmission out and can find nothing wrong. The gears and bearings are in fine shape and also the differential has been checked and found in good shape. Could the clutch cause a noise like slipping gears? I have put in new clutch lining but found one clutch plate not true. I have not seen this before, but would this cause the noise? Any information you can give will be greatly appreciated.—T. Tweed, Finley, N. D.

IF the noise showed up only in first or second gear we would be inclined to blame the transmission, but if the noise is always with you we suspect that there is a little foreign matter in the rear axle. Looseness of the universal at the rear of the transmission might also be causing your trouble. We doubt very much if the clutch is at fault.

Saxon Clutch

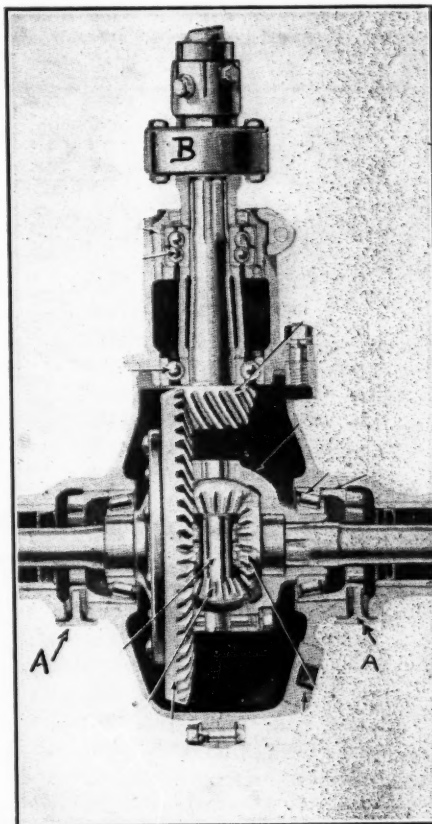
Will you kindly inform us as to what make of clutch was used on the Saxon Duplex Four?—Washburn-McLeese Motor Co., Orion, Ill.

THE clutch used on the Saxon Duplex Four was the Detlaff, which was made by the A. J. Detlaff Co., Detroit, Mich.

Why the Pinion Bearings Break

I shall appreciate it if you will give me your advice as to the cause of excessive ball bearing breakage on the drive pinion shaft of a 1925, Model 93 Overland. Within 27 months after this particular car was put in service, four sets of these bearings were installed. There has been no indication of a lack of lubrication. The bearings were completely wrecked in each case. What can be done to overcome this?—Indiana Subscriber.

WE are showing an illustration of the rear axle of this car. You will notice the side play adjustment "A" for the ring gear. If this is so adjusted as to throw excessive side pressure on the pinion shaft, trouble with the pinion shaft bearings is sure to result. Another and more likely pos-



sibility is that the universal joint "B" does not flex as it should. The stiffness of this joint throws an abnormal strain on the pinion shaft bearings. These are about the only possible causes for the trouble that you have been having.

Buick 1928 Timing

Please tell me what the valve timing is on the 1928 Buick six?—Maurice Stroud, Winchester, Ky.

ON the Standard Six the inlet opens 5 5/6 deg. before top dead center and the exhaust closes 45 1/6 deg. after top dead center. On the Master Six the inlet opens 25 5/6 deg. before top dead center and the exhaust closes 45 1/6 deg. after top dead center.

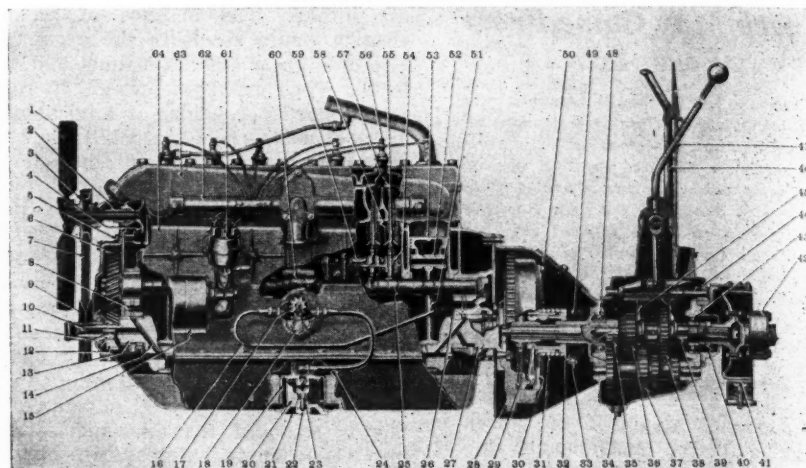
[READERS' CLEARING HOUSE]

1928 Chevrolet Pistons Unsuitable for '26 Car

We have a 1926 Series V Chevrolet coupe with cast-iron skeleton pistons. Is it practical to equip this car with invar strut pistons, as used in the 1928 model? Would the performance be noticeably better?—Milton M. Smith, Monroeville, N. Y.

THE aluminum-alloy pistons as used in the latest Chevrolet cars could not be used in the 1926 Chevrolet which you have. However, practically all of the makers of replacement pistons produce aluminum-alloy pistons that would be suitable for use in your car. There is no doubt that these would improve performance.

Should you experience any difficulty in locating a source of supply on these alloy pistons we can give you the names of several manufacturers.

**Pressure Has Its Ups and Downs**

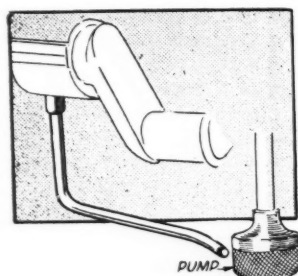
We have a 1926 Overland Six which gives trouble with the oiling system. When the engine is started the gage will not show any pressure until speeded up. Then the pressure comes up to 30, stays a short time and then drops back. With the engine idling the pressure comes up and drops down, and sometimes it stays up to 30. Is there an adjustment on this particular oiling system to regulate the pressure? The bearings are all in good shape. The car has been driven only 9000 miles. The oil pump was taken off and inspected. The gears are in good shape and the pump will pump when turning by hand. We cannot find any leak in the suction line. If you can give us any information in regard to this matter it surely will be appreciated.—Ohio Subscriber.

the power stroke is stronger in some cylinders than in others. This would naturally result in vibration. The second and more likely cause of your trouble is due to unbalanced reciprocating parts. If you have had new pistons put in lately or if this vibration has been in the car ever since it was new, we would suggest that you take out the connecting rods and pistons and weigh them up carefully. They should come within 1/4 oz. of all being alike, or if you weigh your piston and rod assembly together they should all be alike within 1/2 oz. Another possibility is that your flywheel is loose, but that, as a rule, is accompanied by knocking.

SHOP KINKS

Ideas that have proved useful

WE often find that some cases of rear main bearing oil leakage are very obstinate to cure. A method that is almost infallible is to connect an extension on the oil drain pipe or hole rear main bearing cap. This extension should run very close to the intake of the oil pump. The result is that the suction to the pump is effectual in draining the rear main bearing, thus preventing leakage at this point.—Floyd Gelfius, care of Franklin Motor Sales, Franklin, Ind.



Readers of MOTOR AGE are invited to submit ideas that they have found useful in doing some particular service job in the shop in a better or quicker way. For each one published \$2.00 will be paid. Whenever possible the idea should be accompanied by a sketch or diagram from which a drawing can be made.

WE are showing an illustration of the entire engine with the oiling system cut away. This may help you in checking up on your job. The pressure regulator is located at No. 10, which is in the front end of the crankshaft. A partially clogged strainer could cause just the trouble that you are having. However, if you find that that does not overcome the difficulty, we would suggest that you take out the front main bearing and turn an oil groove 1/8 in. deep and the full width of the oil duct. This should be carefully done on a lathe and so handled that the two ducts will be connected by this groove. This will act as an air dome in the oil line and assist in maintaining uniform pressure.

Too Much Vibration

I have a 1926 Oldsmobile coupe in which a strong vibration sets in at 22 miles an hour and over. The ignition, timing and bearings have been checked and found O. K. New rings have been installed and the clutch plate, which showed signs of wear, has been replaced. The vibration is still there at all speeds over 22 miles per hour.—H. N. Pride, Ardsley, Pa.

THERE are two possible causes for this trouble. One is that the compression is unequal and consequently

Preventing Corrosion on Battery Terminals

As a subscriber of MOTOR AGE, would like to know what kinds of metals to use in making a non-corrosive battery terminal, one that is hard yet will not corrode.—Illinois Subscriber.

SO would we. All of the investigation and research on the part of different manufacturers has failed to disclose such a metal or alloy. At least it has failed to disclose one that resists corrosion but at the same time has sufficient mechanical strength to stand up on the job.

You are probably familiar with the following method of preventing terminals from corroding. This consists of thoroughly cleaning the terminal in a solution of hot sal soda water or diluted ammonia. After the terminal is thoroughly cleaned and is free from acid and corrosion, it should be rinsed in hot water and dried. A coating of hot beeswax or of vaseline in then quite effectual in protecting the terminal from further corrosion.

Another coating that is equally effectual in preventing corrosion, but which is rather messy to apply is pitch. This was mentioned in the Shop Kinks column several weeks ago.

Legal Queries on Automotive Topics

Answers by Wellington Gustin

Wants Contract Form for Repair Work

I would like some information in regard to a form of contract suitable to use where credit is extended in the sale of accessories, parts and labor. We have been extending credit on repair jobs where the credit rating of the customer justified us in doing so, but have decided that in the majority of cases a lien or mortgage should be procured. We want to get a form printed in which the owner signs that he has inspected the job and certifies that it is satisfactory, etc.

If you can furnish me with a sample of such a contract, or tell me where same can be procured, I will appreciate it very much.—W. G. Grant, Hartington, Neb.

WE regret that we have no form of contract covering the points you need.

Such a form to be of the greatest benefit to you should be drawn up in accordance with Nebraska laws. Exemption laws, as well as power to repossess and sell, should be considered if you want a complete protection.

A Garage Keepers' Association in your state might have such a form as you require.

The Illinois Garage Keepers' Association, Peoria, Ill., has various forms of contracts to protect its members. These are prepared according to Illinois laws. But the proper one could be used as a model.

His Banker's Opinion Costs Him a Franchise

Some time ago I was notified that another garage in this city had obtained the franchise for the car I represented, although I had spring deliveries to fill, and had not been notified until late in the year. I immediately made pro-

test to the factory, and with their help had the contract replaced in my possession—or at least I thought I did.

My new distributor required a deposit of \$100 before he would accept my application. Then he requested that I give him an order for a carload of cars, which I reluctantly did, although I noticed in the contract which I signed and returned to him for verification by himself and branch and factory officials, that nothing of the sort was being required, other than what I had been doing in the past—ordering cars when I needed them.

When the carload arrived, my banker sensed something underhanded, and advised me not to accept the cars until my copy of the contract for that year had been returned to me, as it had been returned to the distributor, surely by that time. So I refused to take the cars until he should return my copy of the contract, which he would not do, and unloaded them himself, and left a couple on hand with another former dealer for display.

I made demand then for my deposit, which he refused to do, and surrendered a statement to me of how he had used the \$100 in extra freight, trouble and delay in placing a dealer here, together with charges showing work done on cars for former purchasers of mine, so far that year.

Now here's what I contend: that the deposit was given in lieu of the contract being returned and awarded me. I understood and agreed with my banker that it would be very easy for them to allow me to unload the cars, and then give the contract over to someone else, leaving me with nothing to show why I had taken delivery of the cars, and I believe he was right. Also in charging me for repair work on cars during a time when I was not the local representative, was not right, was it?—North Dakota Subscriber.

IF your contract with the distributor of automobiles, or other product requires approval by another then the contract may be rejected. But if you had the absolute statement of the distributor that your application would be accepted upon receipt of your \$100,

then when you sent the required deposit the contract was binding on both. Your rights and obligations depended on the terms of the contract. Refusal to send you a copy did not void or breach the contract unless so expressed therein. You should have kept copy of the contract when you signed it. Requiring you to order a carload of automobiles may have been made in order to grant you the franchise—or accept your application for agency.

Doubtless this demand for copy of contract while delaying acceptance of the carload caused bad feelings. You were entitled to copy of contract but were not justified perhaps in refusal of your order for automobiles. You do not have to have a copy of contract to sue on same; you can force the other party to bring the contract into court or else be concluded by what you think is the contract.

If you can show the distributor never accepted your contract or that he breached it, then you can recover your deposit. Otherwise, you would be liable for the carload of automobiles ordered. Since the distributor preferred to recover the automobiles and hold you for breach of contract he is permitted to show his actual damages. This is why he shows you statement of his damages. He may be too high in the amount of these damages. The item of repairs to cars previously sold would depend on the contract. If you agree to service free then you might be held liable for service on cars sold.

Your banker was wrong in his opinions here.

Electrical System of Dodge Victory Six

(Continued from page 43)

The ignition provides 20 deg. of manual and 20 deg. of automatic spark advance, giving a total of 40 deg. when measured on the engine flywheel. The automatic advance starts to operate at 400 r.p.m. and reaches its maximum at about 2200 r.p.m. of engine speed. The firing order of the engine is 1-5-3-6-2-4. The breaker points should be adjusted until they separate .020 in.

The ignition is timed with the spark advanced and No. 1 piston at the firing point. A small hole below the starting motor on the left side of the engine makes it possible to see when the firing point is reached. The engine should be turned so that No. 1 piston is on compression stroke and the flywheel marking "IGN" is in line with the indicator in this hole. When No. 1 piston

has been properly located at firing point, back off the clamping screws in the manual advance arm beneath the breaker-box and turn the breaker-box in a clockwise direction until the distributor rotor is in position to make contact with the lead from No. 1 spark plug in the distributor cap and the breaker contacts are just separating. Then tighten the clamp screw and check the setting by rocking the distributor rotor back and forth. If the setting is correct the contact will open and close as the distributor rotor is rocked.

A more accurate means of checking consists of turning on the ignition switch and watching the ammeter. The ammeter needle will swing from "O" to "Discharge" as the contacts open and close.



Best Medium for Telling the Fortune of the Present

NEW FLORENCE, PA.—It is some job to try to keep up with the modern automobile and MOTOR AGE is the best medium I can find to do this.—*J. W. Faloon.*

Repetition Makes Reputation Say It Again

HEWLETT, L. I., N. Y.—MOTOR AGE is more interesting since being transferred from Chicago.—*Erwin Grunge.*

A Sunkist Compliment from California

SAN PEDRO, CALIF.—The MOTOR AGE is a great help in our work.—*H. Osborne.*

Motor Age for \$3, He Says, is Something for Nothing

EPHRAIM, UTAH—In your Jan. 9 issue you certainly had an article that is worth many a dollar to any man who is driving a car. The article was "Breaking Tires in for High Mileage." I have been, and am still, selling good standard tires and tubes, which are Firestone and Goodyear, and I have read and studied a lot about them.



But this is something new to me, and is sure good, plain sense. And when it comes to getting something for nothing, I sometimes think that anybody that pays \$3 for MOTOR AGE for one year is sure getting something for nothing. Hoping for you all the success there is for 1928.—*College City Service Station.*

LETTERS to the editor from those whose "attention has been called"; from those who point with pride and those who view with alarm, from those who are easy to please and those who are hard to please; from those who are happy when they find a good thing and those who are happier when they find something they consider not so good; from those who boost and those who knock; from those who see the doughnut and those who see the hole; in other words, Dear Subscriber, from you and you and you—as well as from the man who borrows your copy of MOTOR AGE or reads it over your shoulder.

The Wonder of the Age is Motor Age

RUTHVEN, IOWA—I think that your magazine is a wonder. I simply could not get along without it.—*B. Archer.*

Hear! Hear!

DETROIT, MICH.—If everybody in the automotive business would read your paper, there would be better business men, much better competition, and more profitable business to all of us.—*John H. Mohnen.*

Some Baby!

COLUMBUS, OHIO—MOTOR AGE sure is some reading, and getting better all the time.—*J. S. Walters.*

Others Say It's Unique

DAWSON, IOWA—I am a mechanic and feel the need of a good magazine the type of MOTOR AGE.—*E. H. Friedrickson.*

The Beginning of a Beautiful Friendship

DOVER, TENN.—Please send us a subscription blank as we are anxious for MOTOR AGE.—*Dover Motor Co.*

We Earn Our Salt With Peppery Stuff

INDIANAPOLIS, IND.—I am a mechanic and your magazine contains articles that would well be worth the subscription price. I also like the MOTOR AGE because it is a weekly.—*Virgil L. Jones.*

He Can't Live Without His Motor Age

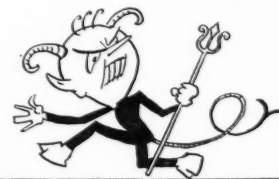
CHICAGO, ILL.—I failed to receive my copy of MOTOR AGE. Will you please see that I get this copy as I cannot be without MOTOR AGE.—*R. A. Yoost.*

The "Head Man" of This Parade

ST. ANTHONY, IDAHO—I think MOTOR AGE is the leading magazine of the automotive industry.—*W. K. Martineau.*

We Get He-Il, But They Like Us Anyway

BLANKET, TEX.—Don't you think it would be much more convenient if you would print specification pages on 54 and 55 instead of putting them on 54 and 56 with an advertisement interlarded between them on 55 which makes it more inconvenient to reader



when comparing specifications of cars? Otherwise we like your MOTOR AGE better than any other motor publication.—*E. & F. Garage.*

With But Not Without

ROSWELL, N. M.—I would not be without the MOTOR AGE.—*W. L. Rogers.*

A—Wood wheels with spare.	D—Disk wheels with spare.	i—Trunk and trunk rack.	o—Car beater.	v—Vanity set.
a—Wood wheels.	d—Disk wheels.	j—Trunk rack, no trunk.	p—Cigar lighter.	w—Windshield wings
B—Wire wheels with spare.	e—Front and rear bumpers.	k—Spare tire.	r—Rear traffic signal.	x—Clock.
b—Wire wheels.	f—Front bumper.	l—Spare tire lock.	s—Spotlight.	y—Overall length.
C—Optional wheels with spare.	g—Shock absorbers or snubbers.	m—Engine heat indicator.	t—Vanity and smoking set.	z—Prices on application
c—Type of wheels optional.	h—Automatic windshield wiper.	n—Dash gasoline gage.	u—Smoking set.	

Prices, Weights and Equipment of Current Passenger Car Models

Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment
FORD "A"				
2-4p. Roadster.....	\$ 385	2	.....	Bghnr
6p. Phaeton.....	395	4	.....	Bghnr
2p. Coupe.....	495	2	.....	Bghnr
6p. Tudor Sedan.....	495	5	.....	Bghnr
2-4p. Spt. Coupe.....	550	2	.....	Bghnr
6p. Fordor Sedan.....	570	4	.....	Bghnr
FRANKLIN "Series 12" 119" W.B.				
3p. Coupe.....	\$2625	3	3390	an
4-6p. Victoria.....	2760	3	3470	an
6p. Sedan.....	2760	3	3500	an
6p. OX Sedan.....	2815	3	3500	an
6p. Spt. Sedan.....	2910	3	3550	an
3-5p. Conv't Cpe.....	2925	3	3450	an
128" W.B.				
2-4p. Sp. Runab't.....	2975	2	3390	an
6p. Sp. Touring.....	2975	2	.....	an
7p. Touring.....	3060	3	3540	an
7p. Sedan.....	2980	3	3780	an
7p. Ox Sedan.....	3015	3	3780	an
7p. Limousine.....	3080	3	3780	an
GARDNER "75 Std."				
4p. Roadster.....	\$1195	2	2995	afhmnr
6p. Sp. Coupe.....	1295	2	3290	afhjmnr
4p. Vic. Coupe.....	1295	2	3290	afhjmnr
5p. Club Sedan.....	1390	4	3265	afhmnr
5p. Std. Sedan.....	1495	4	.....	afhmnr
"75 Del."				
4p. Roadster.....	1295	2	2995	aeghmnr
6-p. Sp. Coupe.....	1395	2	3290	aeghjmr
4p. Vic. Coupe.....	1395	2	3290	aeghjmr
5p. Club Sedan.....	1490	4	3265	aeghmnr
5p. Del. Sedan.....	1595	4	.....	aeghmnr
"85"				
4p. Roadster.....	1695	2	3040	Aeghmnr
6p. Brougham.....	1875	4	3360	Aeghjmnr
5p. Sedan.....	1895	4	3380	Aeghmnr
Cus. Coupe.....	2095	.....	.....	.....
"95"				
2-4p. Roadster.....	2095	.....	.....	aeghmnprr
2-4p. Collap. Cpe.....	2495	.....	.....	aeghmnprr
5p. Brougham.....	2275	4	.....	aeghmnprr
6p. Sedan.....	2295	4	.....	aeghmnprr
GRAHAM-PAIGE "610"				
2p. Coupe.....	\$360	.....	.....	.....
6p. Sedan.....	875	.....	.....	.....
"619"				
4p. Coupe.....	1575	.....	.....	.....
5p. Sedan.....	1595	.....	.....	.....
"629"				
5p. Sedan.....	1985	.....	.....	.....
5p. Town Sedan.....	2085	.....	.....	.....
7p. Sedan.....	2110	.....	.....	.....
HUDSON "65"				
2-4p. Coupe.....	\$1295	2	3525	ahmnr
5p. Coach.....	1250	2	3575	ahmnr
6p. Sedan.....	1325	4	3645	ahmnr
"O"				
5p. Landau Sed.....	1650	4	3780	aghmnr
5p. Std. Sedan.....	1450	4	3720	aghmnr
4p. Victoria.....	1650	2	3710	aghmnr
7p. Sedan.....	1950	4	3945	aghmnr
IUPMOBILE "Century 6"				
p. Phaeton.....	\$1425	2	2900	ighr
lp. Sportster.....	1435	2	2240	ughr
p. Phaeton.....	1455	4	2240	ughr
p. Sedan 2d.....	1345	2	2265	ughr
lp. Coupe.....	1385	2	2265	ughr
p. Sedan.....	1395	4	3040	ughr
p. Cabriolet.....	1475	.....	.....	ughr
"Century 125-8"				
lp. Touring.....	1795	4	3300	egharx
7p. Touring.....	1895	4	3360	egbnrvx
2-4p. Roadster.....	1895	2	3355	egbnrvx
5p. Brougham.....	2005	2	3515	j
2-4p. Coupe.....	2195	2	3465	dghrx
lp. Sedan.....	2195	4	3545	aghrx
5p. Victoria.....	2195	2	3525	aghnrx
7p. Sedan.....	2345	4	3360	ehrx
7p. Sedan Lim.....	2520	4	3360	aebrnx
"Century 8"				
5p. Phaeton.....	1905	.....	.....	.....
2-4p. Sportster.....	1915	.....	.....	.....
7p. Phaeton.....	1935	.....	.....	.....
5p. Sedan.....	1825	2	.....	.....
4p. Coupe.....	1865	.....	.....	.....
4p. Sedan.....	1875	4	.....	.....
2-4p. Cabriolet.....	1955	.....	.....	.....
JORDAN "R"				
4p. Blue Boy.....	\$1495	4	2800	Beeghkmnr
4p. Spt. Salon.....	1295	2	2775	aghmnr
2-4p. Tombay.....	1395	2	2650	aghmnr
5p. Sedan.....	1395	4	2775	aghmnr
"J"				
4p. Playboy.....	1845	2	2915	aghmnr
2-4p. Sp. Coupe.....	1895	2	3070	aghmnr
5p. Cus. Sedan.....	1895	4	3200	aghmnr
4p. Cus. Vict.....	1895	2	3200	aghmnr
"JE"				
4p. Collap. Coupe.....	1995	2	3185	aghmnr
4p. Perm. Coupe.....	1995	2	3185	aghmnr
5p. Victoria.....	1995	2	3275	aghmnr
5p. Sedan.....	1995	4	3300	aghmnr
KISSEL "6-70"				
4p. Cpe. Roadster.....	\$1595	.....	2920	ahmr
5p. Bro'm Sedan.....	1495	4	2915	ahmr
5p. Victoria.....	1595	.....	2990	.....
5p. Sedan.....	1595	.....	3005	.....
"8-80" 125" W.B.				
5p. Phaeton.....	1885	4	3240	ahmr
4p. Speedster.....	2095	2	3155	ahmr
4p. Cpe. Rdstr.....	2095	2	3343	ahmr
5p. Spec. Bro'm.....	1995	2	3345	ahmr
5p. Bro'm Sedan.....	2095	4	3400	ahmr
5p. Conv. Bro'm.....	2495	.....	3518	ahmr
132" W.B.				
7p. Touring.....	1985	4	3360	ahmr
4p. Tourster.....	2095	4	3155	ahmr
5p. Bro'm Sedan.....	2295	4	3455	ahmr
7p. Sedan.....	2495	.....	3630	ahmr
"8-80S"				
4p. Coupe Rdstr.....	1995	.....	3350	.....
5p. Brougham.....	1895	.....	3250	.....
5p. Sedan.....	1995	.....	3350	.....
4p. Victoria.....	1995	.....	3320	.....
"8-90" 131" W.B.				
5p. Phaeton.....	2185	4	3220	ahmr
4p. Speedster.....	2395	2	3360	ahmr
4p. Cpe. Rdstr.....	2395	2	3578	ahmr
lp. Spec. Bro'm.....	2295	2	3671	ahmr
3p. Bro'm Sedan.....	2395	4	3760	ahmr
3p. Conv. Bro'm.....	2795	.....	3863	ahmr
139" W.B.				
7p. Touring.....	2285	4	3630	ahmr
4p. Tourster.....	2395	4	3335	ahmr
3p. Bro'm Sedan.....	2595	4	3755	ahmr
7p. Sedan.....	2795	4	3975	ahmr
7p. Sedan Del.....	2985	4	3910	aghmnr
7p. Sedan Del.....	3495	4	4090	aghmnr
7p. Ber. Sedan.....	3585	4	4125	aghmnr
LA SALLE 125" W.B.				
2-4p. Roadster.....	\$2485	2	3755	eghmnprr
p. Phaeton.....	2485	4	3770	eghmnprr
p. Sp. Phaeton.....	2975	4	4170	eghjkmprr
"Bus. Coupe."				
p. Family Sedan.....	2350	.....	3930	eghmnprr
2-4p. Coupe.....	2450	2	3965	eghmnprr
2-4p. Conv. Cpe.....	2550	2	3990	eghmnprr
p. Victoria.....	2550	2	3985	eghmnprr
p. Town Sedan.....	2495	4	4065	eghmnprr
p. Sedan.....	2495	4	4090	eghmnprr
p. Coupe.....	3000	2	.....	eghmnprr
p. Sedan.....	3200	4	.....	eghmnprr
p. Town Cab.....	4500	4	.....	.....
3p. Trans. Cab.....	4700	4	.....	.....
134" W.B.				
7p. Family Sedan.....	2575	.....	4345	eghmnprr
p. Coupe.....	2625	.....	.....	eghmnprr
p. Cab. Sedan.....	2675	.....	.....	eghmnprr
7p. Sedan.....	2775	4	4345	eghmnprr
5p. Imp. Sedan.....	2775	4	4315	eghmnprr
7p. Imp. Sedan.....	2875	4	4570	eghmnprr
LINCOLN "8"				
2p. Spt. Rdstr.....	\$4600	2	4930	aeghlnprx
2-4p. Club Rdstr.....	4600	.....	5010	aeghlnprx
7p. Spt. Touring.....	4600	4	4940	aeghlnprx
2p. Spt. Phaeton.....	4600	4	4910	beghlnprwx
4p. Coupe.....	4600	2	4805	aeghlnprx
4p. Sedan.....	4800	4	4930	aeghlnprx
5p. Sedan.....	4800	4	5010	aeghlnprx
2p. Coupe.....	5000	.....	4720	aeghlnprx
7p. Sedan.....	5000	4	5050	aeghlnprx
7p. Limousine.....	5200	4	5165	aeghlnprx
4p. Berline.....	5500	.....	5115	aeghlnprx
7p. Limousine.....	6000	.....	5390	aeghlnprx
7p. Brougham.....	6400	.....	5025	aeghlnprx
6p. Ber. Landau.....	6500	.....	.....	aeghlnprx
7p. Cabriolet.....	6600	.....	5160	aeghlnprx
7p. Le Baron Cab.....	7000	.....	5200	aeghlnprx
7p. Holbrook Cab.....	7200	.....	5280	aeghlnprx
7p. Collap. Cab.....	7300	.....	5140	aeghlnprx
LOCOMOBILE "8-70"				
5p. Brougham.....	\$2100	4	3525	afghkmnr
5p. Sedan.....	2100	4	3575	afghkmnr
4p. Vic. Coupe.....	2100	2	3600	afghkmnr
"8-80"				
4p. Spt. Touring.....	2850	2	3972	aeghklmnprr
4p. Coupe.....	2975	2	.....	.....
4p. Collap. Coupe.....	3000	2	3780	aeghklmnprr
5p. Sedan.....	2850	4	3950	aeghklmnprr
5p. Brougham.....	2900	4	3990	aeghklmnprr
7p. Sedan.....	3350	4	4140	aeghklmnprr
7p. Sub. Sedan.....	3500	4	4280	aeghklmnprr
"48"				
4p. Sportif.....	.....	4	5030	afghklrxx
7p. Touring.....	.....	4	5330	afghklrxx
7p. Tour Lim.....	.....	4	5640	afghklrxx
6p. Brougham.....	.....	4	5464	afghklrxx
5p. Vic. Sedan.....	.....	4	5600	afghklrxx
7p. Lim. Enc. Dr.....	.....	4	5465	afghklrxx
7p. Cabriolet.....	.....	4	5624	afghklrxx
"90"				
4p. Sportif.....	5900	4	4475	aeghklmnprr
4p. Roadster.....	5900	2	4370	aeghklmnprr
7p. Touring.....	6000	.....	.....	aeghklmnprr
5p. Vic. Sedan.....	7300	4	4842	afghimprtx
7p. Suburban.....	7500	4	4930	afghimprtx
4p. Vic. Sedan.....	7450	.....	.....	aeghklmnprr
7p. Town Bro'm.....	7500	4	4615	afghimprtx
7p. Cabriolet.....	7500	4	4615	afghimprtx
Collap. Cab.....	7750	.....	.....	aeghklmnprr
McFARLAN "Str. 8"				
131" W.B.				
p. Roadster.....	\$5050	2	3400	afghlmnprr
p. Touring.....	2650	4	3450	afghlmnprr
p. Phaeton.....	2750	4	3400	afghlmnprr
p. Sp. Phaeton.....	3180	4	3400	afghlmnprr
p. Town Coupe.....	3180	2	3650	afghlmnprr
p. Sedan.....	3180	4	3650	afghlmnprr
p. Brougham.....	3180	4	3650	afghlmnprr
p. Town Car.....	4600	4	3750	afghlmnprr
136" W.B.				
7p. Sedan.....	3690	4	4090	afghlmnprr
7p. Sub. Sedan.....	3780	4	4090	afghlmnprr
"TV6"				
p. Roadster.....	5800	2	4300	afghlmnprr
p. Spt. Tour.....	5800	4	4700	afghlmnprr
p. Touring.....	5700	4	4300	afghlmnprr
p. Sedan.....	6720	4	5200	afghlmnprr
7p. Sedan.....	6720	4	5200	afghlmnprr
7p. Sedan.....	6920	4	5200	afghlmnprr
7p. Town Car.....	9000	4	5200	afghlmnprr
MARMON "68"				
2p. Roadster.....	\$1495	.....	.....	.....
5p. Sedan.....	1395	4	2897	ahmnr
4p. Vic. Coupe.....	1450	.....	2887	ahmnr
2p. Coupe.....	1395	.....	2827	ahmnr
"78"				
2-4p. Roadster.....	1895	2	3007	ahlmnprrwx
4p. Speedster.....	1965	4	4052	ahlmnprrwx
2-4p. Collap. Cpe.....	1995	2	2987	ahlmnprr
2-4p. Coupe.....	1895	2	3037	ahlmnprr
4p. Vic. Coupe.....	1995	2	3066	ahlmnprr
5p. Sedan.....	1895	4	3104	ahlmnprr
"E-75"				
2p. Speedster.....	3485	2	4251	aeghlnprx
4p. Speedster.....	3485	2	4256	aeghlnprx
5p. Phaeton.....	3485	4	4017	aeghlnprx
7p. Tour. Speed.....	3565	4	4480	aeghlnprx
2p. Coupe Rdstr.....	3565	2	4374	aeghlnprx
5p. Town Coupe.....	3195	2	4452	aeghlnprx
2p. Coupe.....	3485	2	4373	aeghlnprx
4p. Victoria.....	3485	2	4346	aeghlnprx
5p. Brougham.....	3565	4	4525	aeghlnprx
5p. Sedan.....	3565	4	4408	aeghlnprx
7p. Sedan.....	3640	4	4620	aeghlnprx
5p. Cus. Sedan.....	3960	4	4515	aeghlnprx
7p. Cus. Sedan.....	4075	4	4678	aeghlnprx
7p. Cus. Limou.....	4175	4	4718	aeghlnprx
MOON "6-60"				
5p. Phaeton.....	\$995	4	2340	an
3-5p. Roy. Rdstr.....	1095	2	2330	anw
3-5p. Roy. Cab.....	1295	2	2575	an
5p. Coach.....	995	.....	2420	an
5p. Roy. Sedan.....	1195	2	2520	ahin
5p. Roy. Sedan.....	1295	4	2605	ahn
"Series A"				
5p. Touring.....	1135	4	2560	dn
5p. Roy. Rdstr.....	1395	2	2600	daw
5p. Collap. Cab.....	1795	2	2720	.....
5p. Sedan Del.....	1395	2	2710	dno
5p. Sedan Del.....	1545	4	2860	dno
"6-72"				
2-4p. Roy. Rdstr.....	1395	2	2630	aghmnr
3p. Roy Cab Rdstr.....	1445	2	2815	aghmnr
5p. Royal Sedan.....	1445	2	3030	aghmnr
5p. Royal Sedan.....	1545	4	3080	aghmnr
"8-80"				
5p. C.C. Sedan.....	2195	4	3500	chmnr
5p. Sedan.....	2195	4	3500	chmnr
NASH "Std. 6"				
5p. Touring.....	\$865	4	2325	Dghnr
2-4p. Conv't Cab.....	925	2	2505	Dghnr
2p. Coupe.....	845	2	2345	Dghnr
5p. Sedan.....	845	2	2450	Dghnr
5p. Sedan.....	925	2	2500	Dghnr
5p. Land. Sedan.....	995</			

KEY TO SYMBOLS:

- A—Wood wheels with spare.
a—Wood wheels.
B—Wire wheels with spare.
b—Wire wheels.
C—Optional wheels with spare.
c—Type of wheels optional.
- D—Disk wheels with spare.
d—Disk wheels.
e—Front and rear bumpers.
f—Front bumper.
g—Shock absorbers or snubbers.
h—Automatic windshield wiper.
- i—Trunk and trunk rack.
j—Trunk rack, no trunk.
k—Spare tire.
l—Spare tire lock.
m—Engine heat indicator.
n—Dash gasoline gage.
- o—Car heater.
p—Cigar lighter.
r—Rear traffic signal.
s—Spotlight.
t—Vanity and smoking set.
u—Smoking set.
- v—Vanity set.
w—Windshield wings.
z—Clock.
Z—Overall length.
\$—Prices on applications.

Prices, Weights and Equipment of Current Passenger Car Models

Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment
"Special"					PEERLESS					ROAMER					"Commander"				
4p. Roadster....	1225	2	2980	Dghnr	2-4p. Roadster....	\$1195	2	2600	deghlmnr	2p. Roadster....	\$1595	2	3450		4p. Sp. Roadster..	1895	2	3333	aeghmnr
5p. Touring....	1135	4	2680	Dghnr	5p. Phaeton....	1195	4	2765	aeghlmnrw	2p. Coupe....	1750	2	3225		3p. Bus. Coupe....	1495	2	3333	aeghmnr
2-4p. Cabriolet..	1290	4	3070	Dghnr	2-4p. C'pe Rdstr..	1295	4	2725	deghlmnr	5p. Sedan....	1795	2	3380		4p. Victoria....	1495	2	3500	aeghmnr
2p. Bus. Coupe....	1165	2	3030	Dghnr	5p. Sedan....	1295	4	2895	deghlmnr	"8-80"				5p. Sedan....	1495	4	3566	aeghmnr	
5p. Sedan....	1215	2	3150	Dghnrt	"6-80"					2p. Coupe....	1985	2	3410	ag	4p. Cpe. Regal....	1625	2	3455	aeghmnr
4p. Coupe....	1245	2	3030	Dghnr	5p. Phaeton....	1395	4	2850	aeghlmnrw	5p. Brougham....	1985	2	3440	ag	4p. Vic. Regal....	1625	2	3500	aeghmnr
4p. Victoria....	1295	2	3170	Dghnr	2-4p. Roadster....	1495	2	3025	ceghlmnrw	5p. Sedan....	1985	4	3570	ag	5p. Sed. Regal....	1625	4	3566	aeghmnr
5p. Sedan....	1265	4	3250	Dghnrt	2-4p. Coupe....	1565	2	2975	aeghlmnr	"8-88"									
5p. Coupe....	1445	4	3380	Dghnrt	5p. 2d. Sedan....	1395	2	3000	aeghlmnr	5p. Tourer....	2495	4	3650	cg	5p. Sedan....	1985	4	4000	aeghmnr
"Advanced"					5p. Std. Sedan....	1395	4	3125	aeghmnr	5p. Sedan....	2985	4	3880	cg	7p. Sedan....	1985	4	4040	aeghmnr
121" W.B.					5p. Spt. Sedan....	1395	4	3100		7p. Sedan....	3285	4	3980	cg	5p. DeL. Sedan....	2250	4	4185	Beghikmnp
4p. Roadster....	1475	2	3400	Dghmnr	5p. DeL. Sedan....	1795	4	3125	Deghlmnr	"President 8"									
4p. Touring....	1340	4	3400	Dghmnr	"6-91"					5p. Sedan....	2985	4	3880	cg	7p. DeL. Sedan....	2250	4	4225	Beghikmnp
5p. Sedan....	1425	2	3620	Dghmnr	5p. Phaeton....	1695	4	2930	aeghlmnrwx	ROLLS ROYCE									
5p. Sedan....	1495	4	3650	Dghmnr	2-4p. Sp. Roadster	1695	2	2960	aeghlmnrwx	"St. Ghost"									
127" W.B.					4p. Coupe....	1725	2	3050	aeghlmnr	Open Models....									
7p. Touring....	1440	4	3500	Dghmnr	4p. Sedan....	1895	2	3150	aeghlmnr	Closed Models....									
5p. Sp. Touring....	1540	4	3500	Bghlmnrpt	5p. Sedan....	1895	4	3200	aeghlmnr	"New Phan"									
5p. Victoria....	1595	2	3640	Dghmnr	5p. Landulet....	1995	4	3250	aeghlmnr	Open Models....									
4p. Coupe....	1775	2	3650	Dghmnr	128" W.B.					Closed Models....									
5p. Amb. Sedan....	1925	4	3820	Dghnprt	7p. Sedan....	1985	4		B	STAR "4"									
7p. Sedan....	1990	4	3830	Dghnrt	"6-69"					... Roadster....	\$495			ah					
7p. Imp. Sedan....	2165	4	3900	Dghnprt	126" W.B.					... Coupe....	495			ah					
OAKLAND "AA-6"					5p. Coupe....	2705	3	3810	Deghlmnr	5p. Sedan....	495	2		ah					
5p. Sp. Phaeton....	\$1095	4	2620	aehjn	5p. Sedan....	2345	4	3875	Deghlmnr	133 1/2" W.B.									
4p. Sp. Rdster....	1075	2	2730	aehjn	2-4p. Roadster....	2245	2	3650	Deghlmnr	7p. Sedan....	2545	4	3975	Deghlmnr	7p. Speedster....	3895	4	4748	aeghlmnr
2-4p. Cabriolet..	1155	2	2825	ahn	7p. Sedan....	2545	4	4275	Deghlmnr	7p. Cus. Sed. Lim	2645	4	4275	Deghlmnr	7p. Sedan....	3895	4	4748	aeghlmnr
5p. 2d. Sedan....	1045	2	2890	ahn	5p. Sedan....	2345	4	3850	Deghlmnr	5p. Sedan....	2345	4	4050	Deghlmnr	7p. Sedan Lim....	3995	4	5159	aeghlmnr
5p. Land. Coupe....	1045	2	2890	ahn	7p. Sedan....	2345	4	4050	Deghlmnr	5p. Ber. Lim....	2345	4	4100	Deghlmnr	"Weyman Cus."				
5p. 4d. Sedan....	1145	4	2980	ahn	PIERCE ARROW					"F-6-85"									
5p. Land. Sedan....	1265	4	3050	aehnou	"81"					4p. Roadster....	\$3250	2	4252	aeghlmnr	131" W.B.				
OLDSMOBILE					2p. Runabout....	\$2900	2	3300	afghlmnr	4p. Touring....	3250	4	4322	aeghlmnr	2p. Black Hawk..	4895	2	4459	aeghlmnr
"F-28"					4p. Touring....	3100	4	3330	afghlmnr	4p. Cab. Rdstr....	3550	2	4500	aeghlmnr	4p. Speedster....	3595	4	4509	aeghlmnr
5p. Sp. Roadster..	\$995			ceghmnr	2p. Conv't Rdster	3450	2		afghlmnr	5p. Cus. Sedan....	3350	4	4562	aeghlmnr	4p. Speedster....	3845	4	4509	aeghlmnr
5p. Sp. Touring....	995			ceghmnr	2p. Coupe....	3250	2	3265	afghlmnr	4p. Coupe....	3450	2	4527	aeghlmnr	2p. Black Hawk..	4895	2	4459	aeghlmnr
2p. Coupe....	925			aeghmnr	5p. Brougham....	3250	2	3560	afghlmnr	5p. Std. Sedan....	3450	4	4572	aeghlmnr	4p. Black Hawk..	4895	2	4459	aeghlmnr
4p. Sedan, 2d....	925	2		aeghmnr	5p. Club Sedan....	3300	4	3600	afghlmnr	5p. Sedan Lim....	3700	4	4647	aeghlmnr	2p. Coupe....	3495	2	4459	aeghlmnr
2-4p. Spt. Coupe..	995			ceghmnr	2-4p. Coupe....	3350	2	3435	afghlmnr	5p. Cus. Sed. Lim	3700	4	4637	aeghlmnr	5p. Sedan....	3570	4	4977	aeghlmnr
5p. Sedan, 4d....	1025	4		aeghmnr	5p. Sedan....	3350	4	3600	afghlmnr	5p. Std. Sedan....	3450	4	4572	aeghlmnr	5p. Brougham....	3570	4	4977	aeghlmnr
5p. Landau Sed....	1085			aeghmnr	5p. Sp. Sed. Land	3350	4		afghlmnr	5p. Sedan....	570	4		ah	2p. Cab. Coupe....	3695	2	4520	aeghlmnr
OVERLAND					5p. Club Land....	3400	4	3695	afghlmnr	STEARNS-KNIGHT					145" W.B.				
"4" Whippet					7p. Sedan....	3450	4	3670	afghlmnr	"F-6-85"					7p. Speedster....	3895	4	4748	aeghlmnr
5p. Touring....	\$455	4	1985	ag	4p. Coupe....	3450	2	3450	afghlmnr	4p. Roadster....	\$3250	2	4252	aeghlmnr	7p. Sedan....	3895	4	4748	aeghlmnr
2p. Roadster....	485	2		ag	7p. Ene. Dr. Lim.	3550	4	3760	afghlmnr	4p. Touring....	3250	4	4322	aeghlmnr	7p. Sedan Lim....	3995	4	5159	aeghlmnr
2-4p. Roadster....	525	2	1930	agh	"36"					5p. Cus. Sed. Lim	3700	4	4637	aeghlmnr	"Weyman Cus."				
2p. Coupe....	535	2	2025	ag	2p. Runabout....	5875	2	4560	afghlr	5p. Cus. Sed. Lim	3700	4	4637	aeghlmnr	131" W.B.				
... Coupe Cab....	545				4p. Touring....	5875	4	4510	afghlr	7p. Sedan....	3750	4	4702	aeghlmnr	2p. Black Hawk..	4895	2	4459	aeghlmnr
5p. Coach....	535	2	2075	ag	7p. Touring....	5875	4	4585	afghlr	7p. Sedan Lim....	3950	4	4777	aeghlmnr	5p. Sedan....	4120	4	4509	aeghlmnr
5p. Sedan....	585	4	2185	agh	7p. Sedan....	5875	4	4815	afghlr	"H"					4p. Sedan....	4120	2	4509	aeghlmnr
PACKARD					7p. Lim. Encl....	5875	4	4870	afghlr	4p. Roadster....	5500	2	4875	afghlmnr	4p. Sedan....	4120	2	4509	aeghlmnr
"526"					3p. Coupe....	6375	2	4760	afghlr	4p. Cabriolet....	5100			afghlmnr	4p. Landau Sed....	4420	4	4509	aeghlmnr
4p. Runabout....	\$2275	2	3620	Deghlmnr	4p. Cpe. Sedan....	6375	2	4795	afghlr	5p. Cus. Sedan....	5500	2	5110	afghlmnr	5p. Sedan....	4495	4	4509	aeghlmnr
5p. Phaeton....	2275	4	3665	Deghlmnr	4p. Sedan....	6375	4	4830	afghlr	4p. Coupe....	5500	2	5110	afghlmnr	5p. Sedan....	4495	4	4509	aeghlmnr
5p. Sedan....	2285	4	4000	Deghlmnr	7p. Ene. Dr. Lan.	6000	4	4895	afghlr	5p. Cus. Sedan....	5500	2	5110	afghlmnr	7p. Sedan....	4495	4	4509	aeghlmnr
2-4p. Coupe....	2350		3950		7p. Sedan Lanl....	6000	4	4840	afghlr	5p. Std. Sedan....	5500	2	5110	afghlmnr	7p. Limousine....	4995	4	4778	aeghlmnr
4p. Conv't Cpe....	2425		3875		4p. Lim. Encl....	6375	4	4880	afghlr	5p. Sedan....	5600	4	5100	afghlmnr	7p. Landau Lim....	5295	4	4778	aeghlmnr
"533"					4p. C. C. Sedan....	6475	4	4805	afghlr	"J"					"Salon Cus."				
5p. Phaeton....	2385		3745		2p. Coupe....	6600	2	4745	afghlr	7p. Touring....	5600	4	5030	afghlmnr	5p. PW Sedan....	6345	4	4778	aeghlmnr
4p. Runabout....	2385		3700		4p. Sedan Lanl....	6600	4	4800	afghlr	7p. Sedan....	5600	4	5265	afghlmnr	7p. PW Sedan....	6345	4	4778	aeghlmnr
7p. Touring....	2485	4	3865	Deghlmnr	4p. Ene. Dr. Land	6600	4	4880	afghlr	7p. Limousine....	5800	4	5300	afghlmnr	7p. Con. T'n Car.	6895	4	4778	aeghlmnr
4p. Coupe....	2685	2	4000	Deghlmnr	7p. Fr. Limou....	7500	4	4740	afghlr	"G8-85"					"Std. 50"				
5p. Club Sedan....	2685	4	4085	Deghlmnr	7p. Fr. Landau....	8000	4	4865	afghlr	2p. Roadster....	3950	2	4448	aeghlmnr	5p. Touring....	\$995	2	2670	aeghmnr
7p. Sedan....	2685	4	4145	Deghlmnr	PONTIAC "6"					4p. Touring....	3950	4	4633	aeghlmnr	5p. Coupe....	1165	2	2917	aeghmnr
7p. Sedan Lim....	2785	4	4205	Deghlmnr	2-4p. Roadster....	\$745	2	2270	ahn	4p. Cabriolet....	4550	2	4717	aeghlmnr	5p. Sedan....	1165	4	3017	aeghmnr
"443"					2p. Coupe....	745	2	2435	ahn	5p. Coupe....	4550	2	4882	aeghlmnr	5p. Met. Sedan....	1325	4	3087	aeghmnr
4p. Runabout....	3875		4350	Djk	5p. 2d. Sedan....	745	2	2520	ahn	5p. Sedan....	4650	4	4934	aeghlmnr	"6-66"				
5p. Phaeton....	3875		4370	Djk	4p. Sport Cab....	795	2	2455	ahn	7p. Sedan....	4750	4	5027	aeghlmnr	5p. Metro Sed....	1195	2	2670	aeghmnr
7p. Touring....	3975	4	4410	Deghlmnr	5p. Sedan....	825	4	2595	aehn	5p. Sedan Lim....	4850	4	5009	aeghlmnr	5p. Metro Sed....	1265	2	2670	aeghmnr
2p. Coupe....	4150				5p. Sp. Landau....	875	4	2640	aehn	7p. Limousine....	4950	4	5102	aeghlmnr	2-4p. Metro Cpe..	1265	2	2670	aeghmnr
2p. Conv't Cpe....	4250				REO					"Dictator"					"6-77"				
4p. Coupe....	4450		4635	Djk	"Flying Cloud"					5p. Tourer Royal.	\$1195	4	3000	aeghmnr	5p. Spec. Sedan....	1585	4	3365	aeghlmnr
5p. Club Sedan....	4450	4	4710	Deghlmnr	2p. Roadster....	\$1695	2	3300	aeghmnr	5p. Du Phaeton..	1195	4	3040	aeghmnr	5p. Royal Sedan....	1635	4	3395	aeghlmnr
7p. Sedan....	4450	4	4820	Deghlmnr	5p. Brougham....	1695	2	3425	aeghmnr	4p. Sp. Roadster..	1245	2	3000	aeghmnr	"8-88"				
7p. Sedan Lim....	4550	4	4860	Deghlmnr	4p. Victoria....	1845	2	3350	aeghmnr	7p. Tourer Royal.	1295	4	3020	aeghmnr	5p. Club Phaeton.				
KEY TO SYMBOLS:					5p. Sedan....	1845													

Mechanical Specifications of Current Passenger Car Models

This list comprises current cars distributed on a national basis only. Data for previous models back to 1920 will be found in the Chilton Catalog and Directory

MAKE AND MODEL	Wheel Base (Inches)	Tire Size	Make and Model	Number of Cyls.	Bore and Stroke	Raid H.P.	Piston Displacement	Valve Arrangement	Maximum Brake Horsepower at Specified Speed	Compression Ratio	Camshaft Drive	Piston Material	Crankshaft Vib.	Oiling System	Oil Cleaner?	Radiator Shutter	Carburetor	Air Cleaner?	ELECTRICAL SYSTEM		Clutch—Type and Make	Gear Set—Make	Universal—Type and Make	REAR AXLE		BRAKES		Steering Gear—Make	Rear Spring—Type and Length	Chassis Lubrication—	ABBREVIATIONS—NAMES OF MFRS. OF STOCK PARTS			
																			Generator and Starter Make	Ignition System Make				Type and Make	Type and Make	Foot—Type and Location	Hand—Type and Location					4-Wheel Type		
Auburn.....	76	28x5 25	Lyc.....	WS	8-2 1/2x4 1/4	10.8	185 L	7	88-3200 5.13	5.05	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.9	E-T	H	Ross.	5-53 1/2	Bil	A-Bos—American-Bosch
Auburn.....	88	30x6 20	Lyc.....	GS	8-2 1/2x4 1/4	20.4	247 L	7	115-3200 5.33	5.05	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.7	E-T	H	Ross.	5-53 1/2	Bil	A-K—Aviator Kent
Auburn.....	115	30x6 20	Lyc.....	MD	8-3 1/2x4 1/4	23.4	207 L	7	63-2800 4.79	4.3	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	3.9	E-T	H	Ross.	5-53 1/2	Bil	A-J—Auto-Lite
Buick.....	115	31x5 25	Own.....	WS	8-3 1/2x4 1/4	23.4	207 L	7	63-2800 4.79	4.3	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.9	E-T	H	Ross.	5-53 1/2	Bil	Ad—Adams
Buick.....	120 & 128	33x6 00	Own.....	WS	8-3 1/2x4 1/4	29.4	274 L	7	77-2800 4.3	4.3	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.2	E-T	H	Ross.	5-53 1/2	Bil	Alm—Almco
Cadillac.....	341	32x6 75	Own.....	WS	8-5 1/2x4 1/4	35.1	341 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.7	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	32x6 00	Own.....	WS	8-3 1/2x4 1/4	35.1	338 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.7	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	109	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21.8	185 L	7	80-3000 4.0	4.0	Ch. Als.	Ch. Als.	4	PG	N	N	Mar.	N	N	D-R	D-R	D-R	D-R	P. Long.	War.	m-U-P.	Col.	4.1	E-T	H	Ross.	5-53 1/2	Bil	Am—Almco
Chandler.....	124	30x5 00	Own.....	WS	8-3 1/2x4 1/4	21																												

these
brakes
are
in
keeping
with

1st ✓ ✓ the perfected
motor car mechanisms
of today.

2nd ✓ ✓ the faster
pace of the modern
world.

The first reason why Lockheed Hydraulic Four-Wheel Brakes have proved so popular is because they are in accord with the advancement in motor car design which has taken place in every phase of motor car engineering.

They are free from the complications of numerous mechanical parts. They retain

their adjustment and they are always perfectly equalized; due, of course, to the hydraulic principle.

Furthermore, they *do* stop a car more safely — an effect, again, which is chiefly the result of perfect equalization; but also, in lesser degree, of their unusual ease of application.

HYDRAULIC BRAKE COMPANY • DETROIT, MICHIGAN, U. S. A.

LOCKHEED HYDRAULIC
Four **BRAKES** *Wheel*

X—Sleeve valve

S—Semi-coupler

PE—Pressure to mains, rods
O—Oil cups
OG—Oil and Grease Cups

OG—Oil and Grease Cups

I—In head
I-F—Internal four wheels
I-R—Internal rear wheels

E—External rear wheels
E-T—External transmission
F—Fabric

Al—Aluminum with Strut
B—Semi-steer
B-F—Internal front and
external rear



The "Fountain of the Great Lakes" is one of Lorado Taft's well-known masterpieces.

**"MY STUDIO HAS DESIGNED
THIS SYMBOL OF THE INTEGRITY
AND UNITY OF PURPOSE BACK
OF THE GRAHAM-PAIGE"**

Lorado Taft



Robert C. Graham



Joseph B. Graham



Ray A. Graham

The three Graham brothers

Twenty-five years ago, in the town of Loogootee, Indiana, a youth of nineteen, Joseph B. Graham, started a business career which has placed him and his two brothers, Robert C., three years younger, and Ray A., two years his junior, in the front rank of American manufacturers.

The business grew steadily and was sold in 1916 to profitable advantage. The alliance thus formed has continued without break throughout their entire commercial experience.

Early in 1917 they brought out the Graham "Truck Builder", with a complete line of bodies, and by the fall of 1919 were manufacturing their first complete Graham brothers truck.

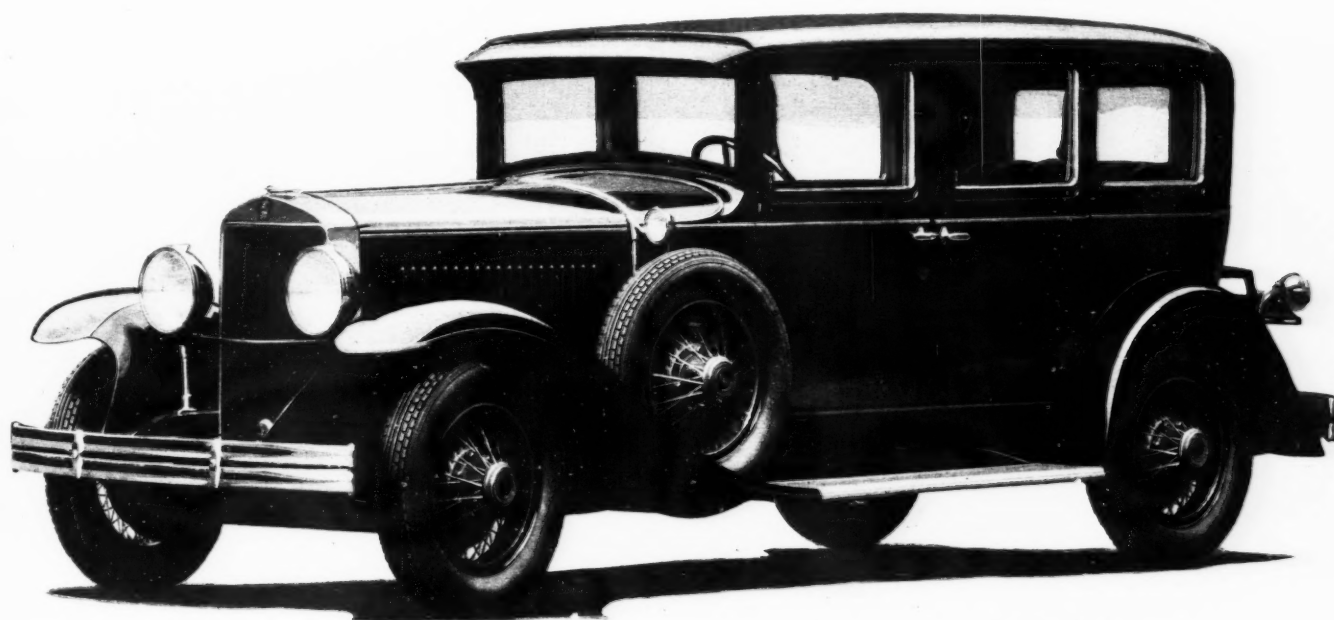


In April, 1921, they moved to Detroit, organized Graham brothers, Incorporated, and became affiliated with a large and progressive passenger car manufacturer, whose dealers simultaneously became dealers in Graham brothers trucks.

In 1925 the three brothers assumed active management of, and became large shareholders in, the passenger car business. In April, 1926, they sold their entire holdings in both companies, which left them abundant financial resources for future operations.

After a year of investigation they purchased controlling interest in the Paige-Detroit Motor Car Company in June, 1927, and assumed active management.

The program of building and expansion began immediately, and the new line of Graham-Paige motor cars which these three Graham brothers returned to the industry to build was shown for the first time in January of this year.



Model 629
Five Passenger Sedan



“we shall strive to make the Graham-Paige dealership a profitable enterprise for a substantial businessman in every community”.

(From "A Message from the three Graham brothers", published June 12, 1927)

The distribution of the first passenger cars bearing the name of the three Graham brothers has been substantially extended, but there are still many good territories open.

Business men who possess the three fundamental qualifications, Character, Capability, and Capital, are cordially invited to telephone, wire, or write.

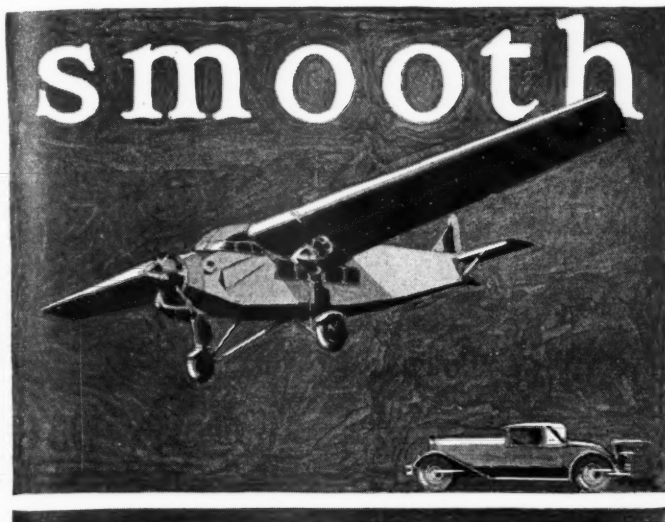
GRAHAM-PAIGE MOTORS CORPORATION

Detroit, Michigan

Among the capable and substantial business men and organizations who have joined their fortunes with the three Graham brothers as distributors of the new line of Graham-Paige motor cars during the past few months are: The C. H. Jennings Corporation, at New York; Gilmour & Gere, Incorporated, at Syracuse; Witbeck Brothers, Incorporated, at Albany and Schenectady; the Lord Auto Company at Lincoln, Nebraska; the Weber Motor Company at St. Louis; James M. O'Dea and Lansing W. Thoms at Detroit; the Van Brunt-Williams Company, at Sioux Falls; Rockwell Motor Company, Des Moines and Blair Motor Company, Salt Lake City.



GRAHAM-PAIGE



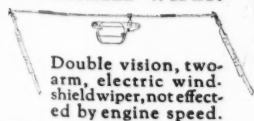
Smooth selling for dealer and jobber—the Bosch Type “Y” Shock Absorber for light cars provides profitable and satisfactory sales volume. Simplest to install and without adjustment or service the selling profit is intact. The Bosch Type “Y” Shock Absorber is true shelf to the customer item. Its new phantom-like action, freedom from adjustment—its wear, water and dust-proof features appeal to motorists. Sold in complete sets packed with all fitters for Chevrolet, Dodge, Essex, Pontiac, Star and Whippet. Every set backed by a 90-day customer satisfaction free trial guarantee. The new low price together with Bosch Advertising, helps rapid stock turnover. Set of four, with all fitters in the carton retails at \$22.

AMERICAN BOSCH MAGNETO CORP.
SPRINGFIELD MASS.

Branches: New York Chicago Detroit San Francisco



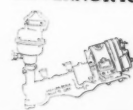
BOSCH ELECTRIC WINDSHIELD WIPER



Double vision, two-arm, electric windshield wiper, not effected by engine speed.

Gives fair-weather vision when it storms—all can see all.

BOSCH MAGNETO and GOVERNOR for FORDSONS



Automatic control for Fordsons. Saves in operation and improves the performance.

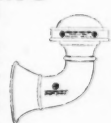
BOSCH SPARK PLUGS



Gas-tight, heat-resisting Bosch Spark Plugs give big, ribbon-like sparks for cold-weather starting.

BOSCH TRAFFIC TUNED HORNS, ELECTRIC

Four sizes and types of instantaneous warning signals with distinctive tones and efficient warning.



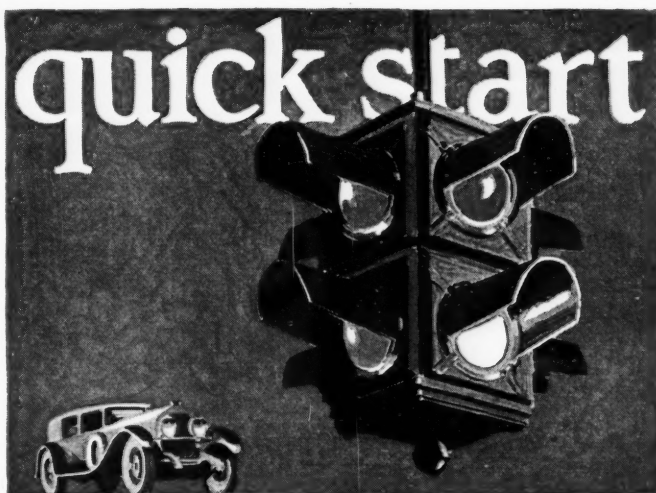
BOSCH IGNITION for FORDS

MODEL “T” Automatic, dependable Bosch ignition adds new performance to Model “T” Fords, improves power and gives greater mileage.



Makers of Bosch Radio Receivers AC and DC Models, Cone-type Reproducible, Power Units and Phonographic Pick-up Device

BOSCH



Instant spark for a quick start! Motorists want that instantaneous full powered start and few realize how simply that want is fulfilled.

There is a waiting market for you to sell the Bosch Universal Coil. Complete with the one piece, truly universal bracket, the installation is simple, quick and inexpensive. It is a fast moving and a full profit item.

Heat, moisture, dust and vibration proof, the Red Bosch Coil gives a long and satisfactory performance. It promotes even firing at all speeds, saves battery drain, prevents fouled plugs and rapid carbonization.

Strongly advertised, widely known and with a long record of satisfactory performance the Bosch Universal Coil and one piece bracket is a highly profitable item to stock and sell. Your nearest wholesaler has them ready for you. \$5.50 to \$6.00.

AMERICAN BOSCH MAGNETO CORP.
SPRINGFIELD MASS.

Branches: New York Chicago Detroit San Francisco



SHERWIN-PAINTS VARNISHES

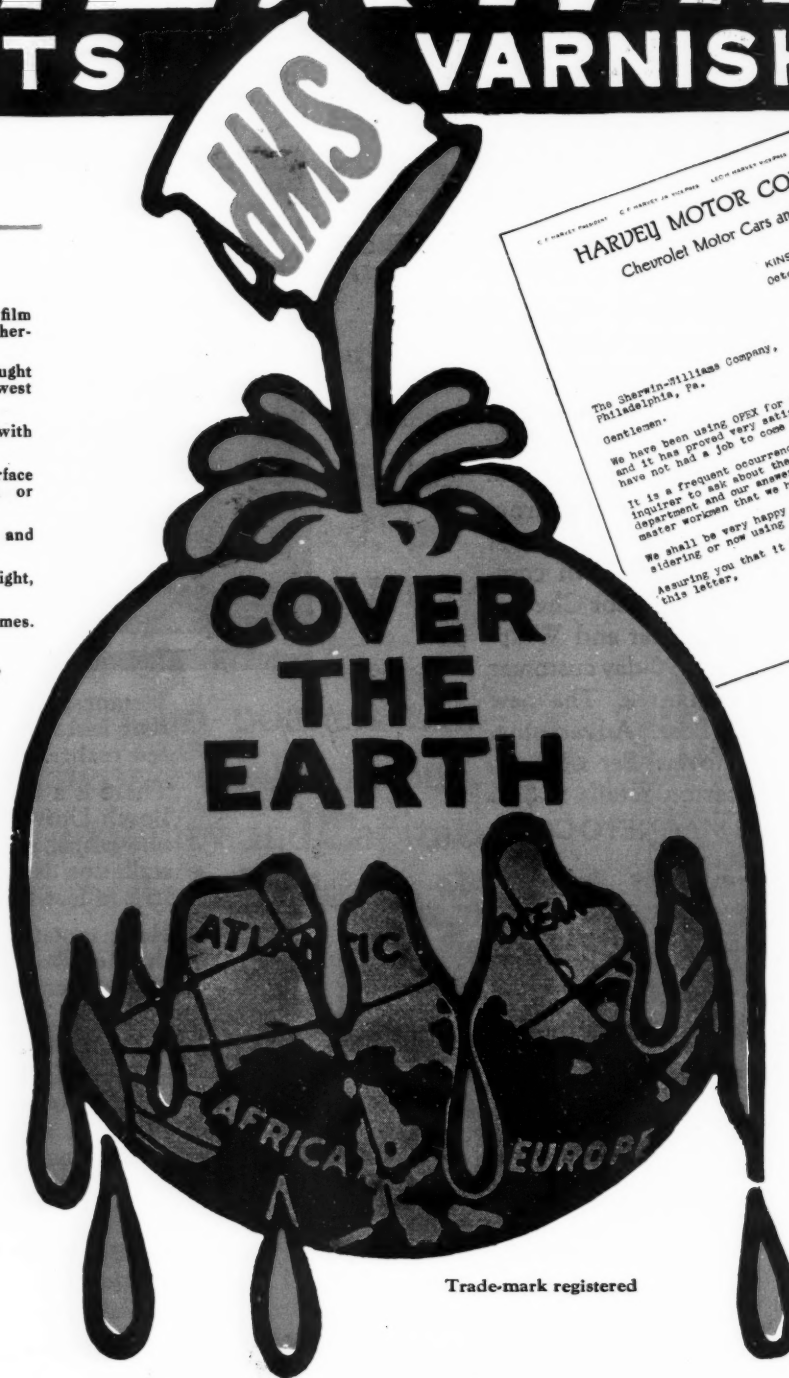
If you want—

- 1 A hard, tough, but not brittle film that is wear, water, and weather-proof;
- 2 A natural gloss that can be brought to a high lustre with the lowest labor cost;
- 3 Exceptional covering capacity with a minimum material cost;
- 4 An even flow and smooth surface free of bubbles, orange peel or blushing;
- 5 Fast color lacquer enamels and colorless clears;
- 6 Uniformity of consistency, weight, and shade;
- 7 No residual color or toxic fumes.

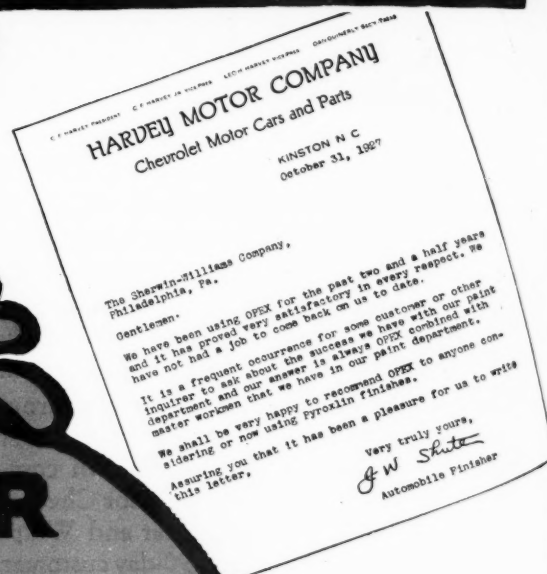
—You will use

OPEX

The perfected lacquer enamel



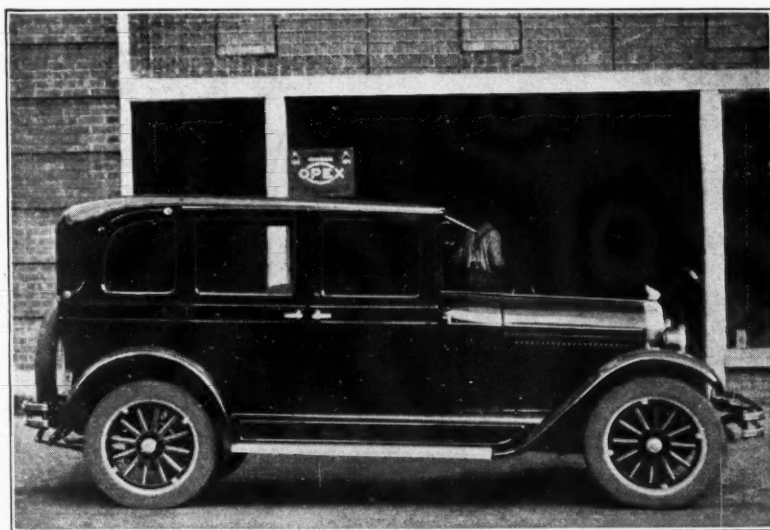
Trade-mark registered



LARGEST IN

WILLIAMS

LACQUERS · ENAMELS



Finisher for Chevrolet dealer lays his success to OPEX

Handsome Opex finishes like on the car above have built a profitable repainting business for the Harvey Motor Company, dealers in Chevrolet Motor Cars, at Kingston, N. C.

Often asked to explain his phenomenal success, the Harvey finisher, Mr. J. W. Shute, answers, "Opex and master workmen."

Like Mr. Shute, master workmen everywhere recognize the superior quality of Opex Lacquer. They're quick to realize its "perfect flow" and "ease of polishing"

help turn out beautiful, first class jobs—that its tough film and durability mean permanent satisfaction to customers.

Let us demonstrate how Opex Lacquer Enamels will help you win refinishing business . . . how the permanent beauty of Opex finishes pleases customers . . . how the super-covering power and easy working qualities of Opex mean real economy in your shop. Send in the coupon. You owe it to your business interests to get full information.

THE SHERWIN-WILLIAMS CO.

Cleveland, Ohio

The Sherwin-Williams Co., Cleveland, Ohio
420 Canal Road, N. W.
Please mail me complete Opex data.
Business title
Address
City
State

THE WORLD

YOU

These ADVANTAGES CHRYSLER

27th TO 3rd PLACE

In only 42 months Chrysler has accomplished remarkable results in this rapidly growing industry—risen from 27th to 3rd place in sales.

SPECIAL "52" DEALER FRANCHISE

Chrysler's special "52" Dealer Franchise makes it possible for a dealer in a small community to sign up only for the "52," yet to have all other models available at call.

You need this special Chrysler "52" Franchise which allows you to sign up for only the "52" model, yet have the privilege of selling any of the others—the best way to lower your overhead.

You need these 4-profit lines of Chrysler cars, the last word in motor car manufacture; for what other car sells so fast as to rise from 27th to 3rd place in 42 months?

You need Chrysler's sensational new low prices and values, made possible through Standardized Quality of engineering and manufacturing.

You need the franchise of a company whose factory policies are always fair

CHRYSLER SALES CORPORATION
DETROIT, MICH.

STANDARDIZED QUALITY

Standardized Quality of engineering and manufacturing makes available to Chrysler cars of lower price the improvements pioneered and developed for Chrysler cars of higher price.

Need

WHICH ONLY CAN GIVE

and whose policies are administered by men who know the business.

Chrysler's unprecedented success compels us to add more dealers to take care of the increasing demand for Chrysler cars.

It may be that we need a dealer in your own community, or that you yourself have desired this franchise, not thinking it available.

Investigate immediately, for a Chrysler Franchise offers you opportunities not to be found in any other.

Wire, Write or Phone Now! You may rest assured that each inquiry will be treated in strictest confidence.

CHRYSLER CORP. OF CANADA, LTD.
WINDSOR, ONTARIO

FAIR FACTORY POLICIES

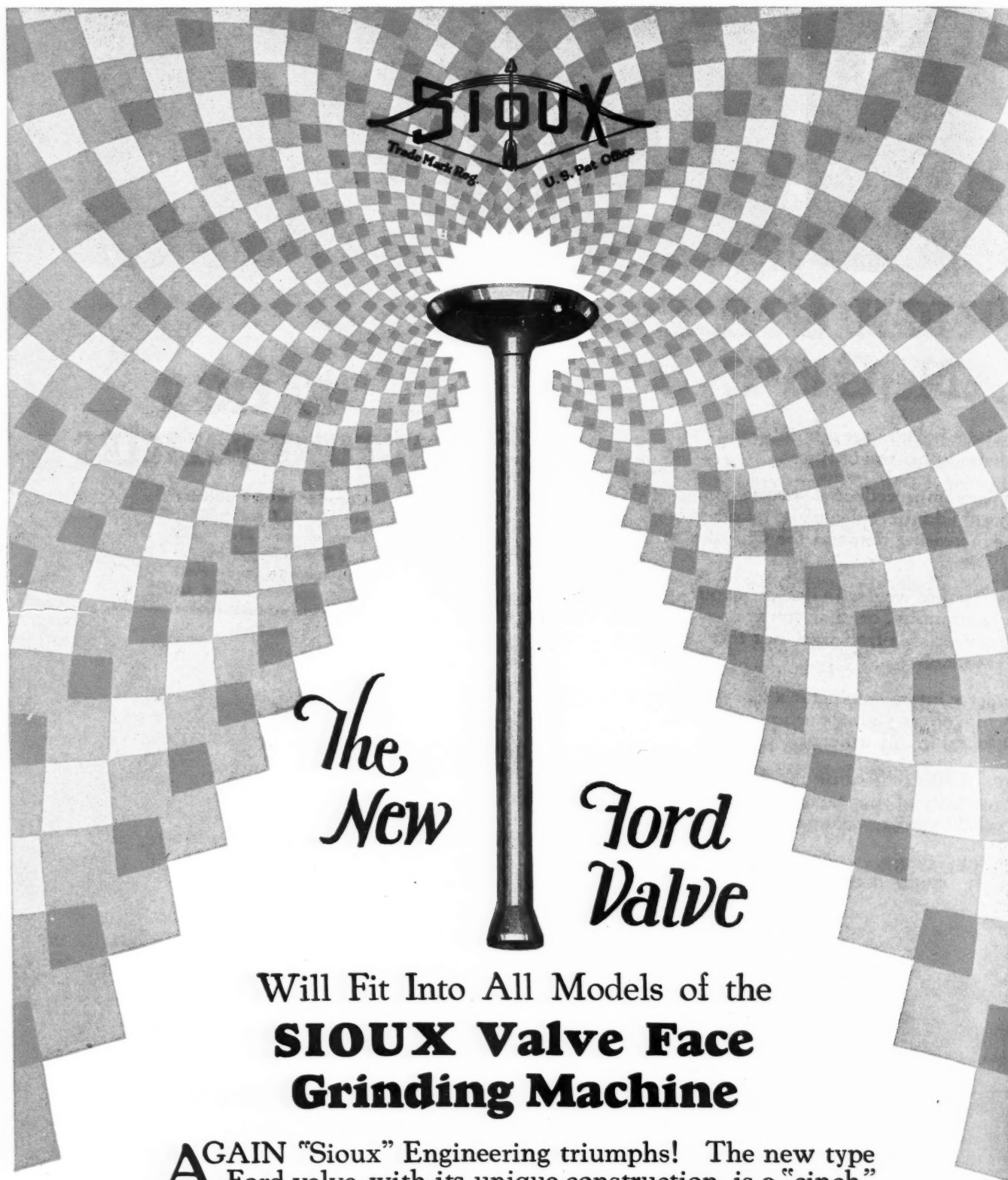
Chrysler factory policies are fair and reasonable, because they are made and administered by executives who have served their apprenticeship in the field and on the sales firing-line.

SENSATIONAL NEW VALUES

Sensational new values, unsurpassed by any car in each price class, are offered by Chrysler in the "52" at its new lower prices from \$670 upwards; the "62," newly-priced from \$1065 upwards; the "72," ranging in price from \$1545 to \$1795; and the 112 h. p. Imperial "80," priced from \$2795 to \$3495.

4 PROFIT LINES

The Chrysler Franchise gives you 4 modern and up-to-the-minute lines of cars—"52," "62," "72" and Imperial "80"—covering the four great markets which comprise the vast majority of buyers.



SIOUX
Trade Mark Reg. U. S. Pat. Office

The New Ford Valve

**Will Fit Into All Models of the
SIOUX Valve Face
Grinding Machine**

A GAIN "Sioux" Engineering triumphs! The new type Ford valve, with its unique construction, is a "cinch" for the Sioux Valve Face Grinding Machine to handle. The capacity and flexibility of the exclusive Sioux Chucking System has already provided for just such unusual demands.

With any model of the Sioux Valve Face Grinding Machine—you can reface and recondition the new Ford valve with amazing accuracy and speed. If you haven't bought a "Sioux" yet—here's another big and important reason why you should delay no longer.

Your Jobber Sells It

ALBERTSON & COMPANY
SIOUX CITY, IOWA, U. S. A.



If we could talk to you right across the desk

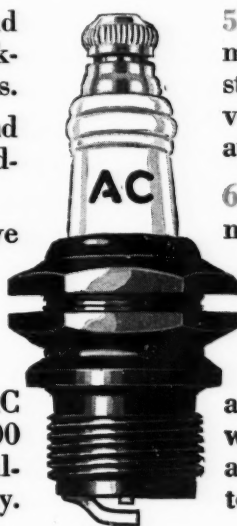
If we could talk to the dealers of America right across the desk, we'd try to make clear just what the AC franchise means to you. This is what we would say:

1. You are hooked up with the largest and most powerful organization engaged in the making of spark plugs and other automotive units.

2. You are identified with the largest and most representative line of automotive products made by any manufacturer.

3. As the high point in the line, you have AC Spark Plugs, endorsed by most of the leading car makers and *proved by every test to be standard of the world.*

4. You have the backing of the world's greatest factory equipment program. AC units are used as factory equipment by 200 manufacturers. The market for AC Oil Filter Renewal Cartridges grows bigger every day.



5. You have an established popular demand for AC products which is being constantly stimulated by the most powerful advertising and merchandising program in the automotive accessory field.

6. This wide and steadily growing replacement market means certain things to you: not only large immediate profits but a guaranty of permanence and increased profits in the future.

Detailed information on any or all of these points will be gladly forwarded to any good dealer. We'd like to hear from you.



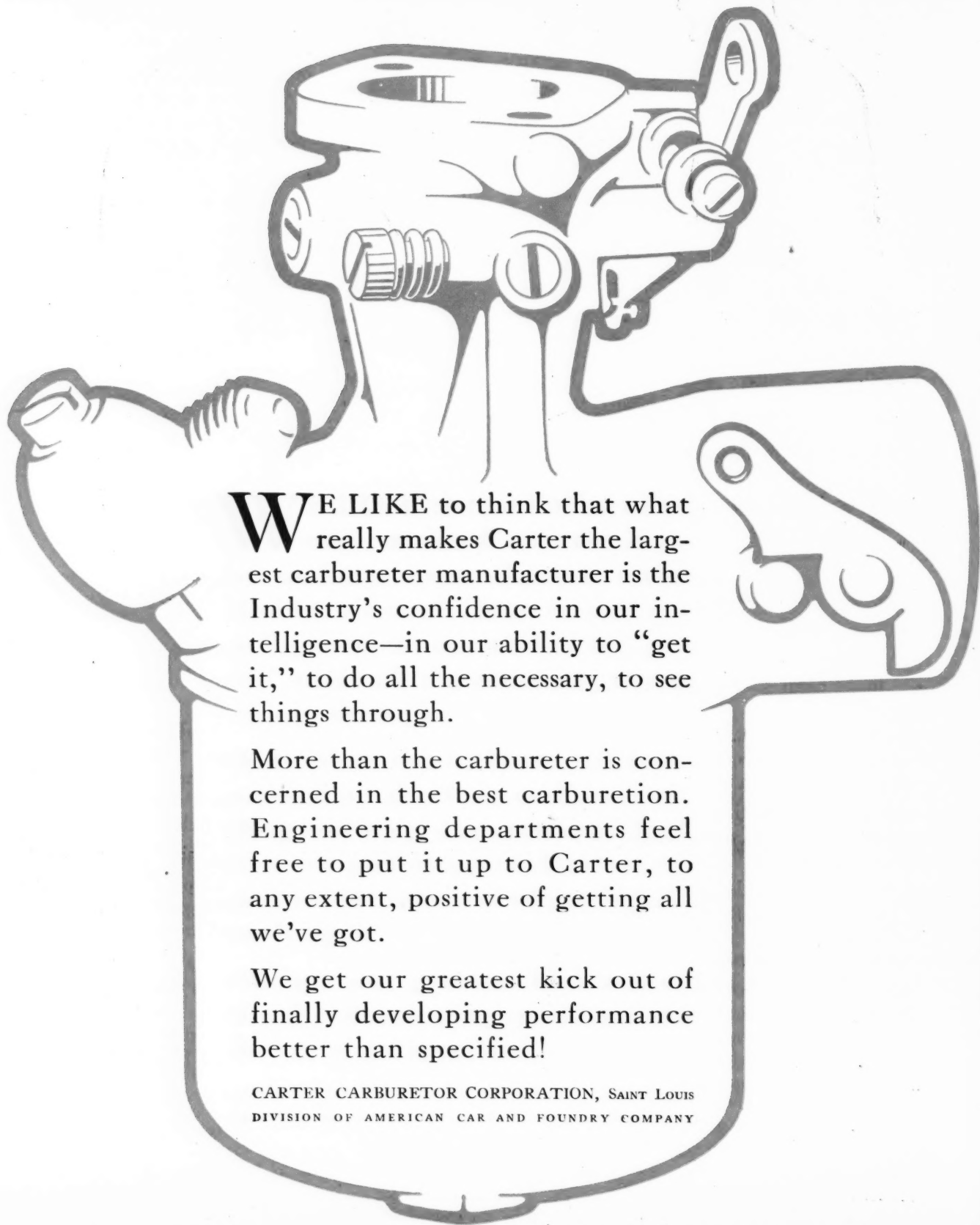
AC-SPHINX
Birmingham
ENGLAND

AC Spark Plug Company
FLINT, Michigan

AC-TITAN
Clichy (Seine)
FRANCE

AC SPARK PLUGS AC SPEEDOMETERS AC AIR CLEANERS AC OIL FILTERS AC FUEL PUMPS
AC GASOLINE STRAINERS AC AMMETERS AC OIL GAUGES AC THERMO GAUGES

CARBURETER



WE LIKE to think that what really makes Carter the largest carbureter manufacturer is the Industry's confidence in our intelligence—in our ability to “get it,” to do all the necessary, to see things through.

More than the carbureter is concerned in the best carburetion. Engineering departments feel free to put it up to Carter, to any extent, positive of getting all we've got.

We get our greatest kick out of finally developing performance better than specified!

CARTER CARBURETOR CORPORATION, SAINT LOUIS
DIVISION OF AMERICAN CAR AND FOUNDRY COMPANY

At last!

an Auxilliary Spring
that increases loading
capacity and cuts costs

TRAINOR OVERLOAD SPRING

EVERY user of a light truck overloads it at times—some do it most of the time. Result—too much weight on the springs—and they break.

The Trainor OVERLOAD Spring permits you to carry an EXTRA TON without any danger of spring breakage. It takes up all the excess weight—relieves the truck springs of this strain—makes one trip do the work of two.

A New Source of Profit

Here is a new source of profit for you. Almost every light truck owner in your community is a prospect and you'll find him easily sold when you once explain the merits of this remarkable spring.

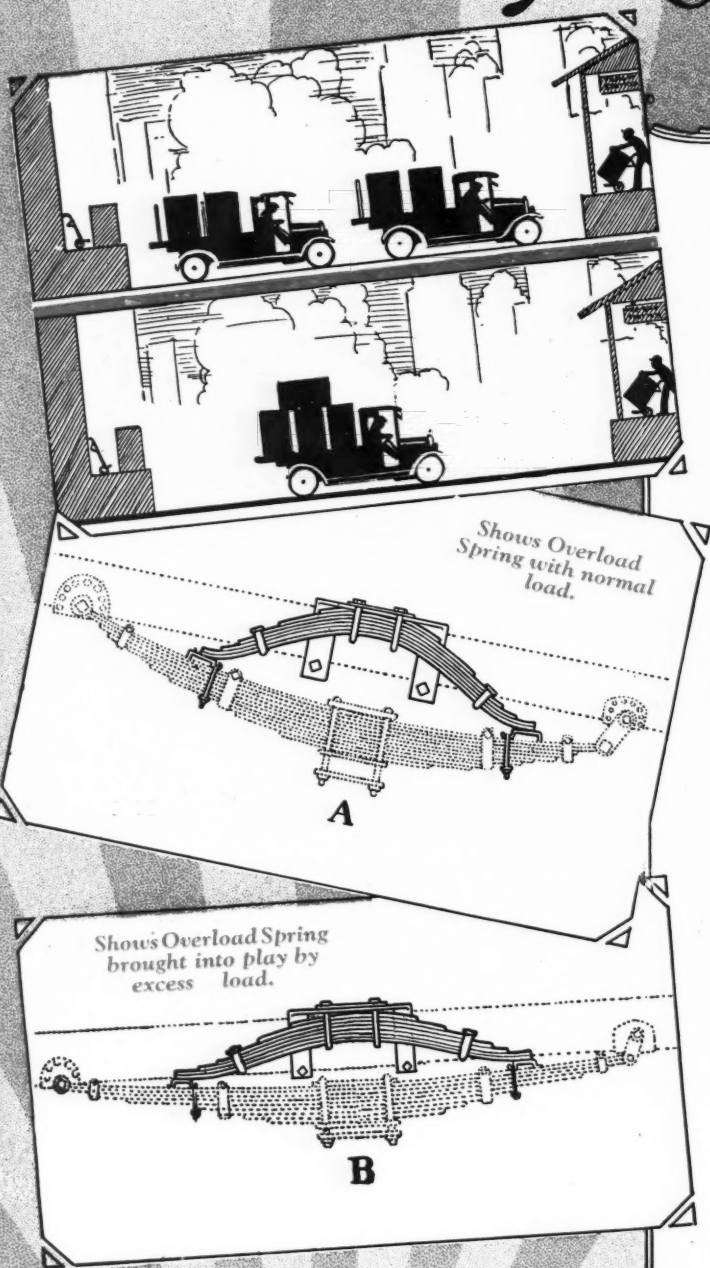
Here
It Is!
EASY to INSTALL!
NO HOLES to DRILL!
CLAMPS ONTO
FRAME AND WILL
NOT COME OFF!

Fits the Following Trucks

CHEVROLET
1 ton—Mod. RX 1925
1 ton—Mod. X 1926-27-28
GRAHAM BROS.
1½ ton—1924-26-27-28
GRAHAM G-BOY
1 ton—1926-27-28
FEDERAL-KNIGHT
1 ton—1926-27-28
1½ ton—S25 1925-26-27
1½ ton—S23 1926-27-28
G. M. C.
Mod. T20—1 ton 1927-28
Mod. T20C—1½ ton 1927-1928
Mod. T40—2 ton 1927-28
STEWART
2-3 ton 1927-28

TRAINOR NATIONAL SPRING CO. Newcastle, Ind.

An accessory that every light truck needs!



THERE'S an enormous market for Trainor OVERLOAD Springs. Just think of the number of light trucks in your own community. Think of the number that come to you for service. Think what an opportunity you have to sell them an accessory that each one needs and wants. AND THERE'S A REAL MARGIN IN IT FOR YOU.

Make One Trip Instead of Two

Truck owners can now safely load an extra ton without danger of spring breakage—make one trip do instead of two—cut hauling costs—increase profits—with Trainor OVERLOAD Springs.

Here's How They Work

The illustrations show clearly how Trainor OVERLOAD Springs function. "A" shows the truck spring under a light load. The OVERLOAD Spring does not come into play under these conditions. "B" shows the spring when the truck is overloaded. Excess weight brings the OVERLOAD Spring into play taking up the added tonnage and eliminating any strain on the truck springs.

A Shock Absorber, Also

The Trainor OVERLOAD Spring is automatically a shock absorber, taking up the jolts and jars—protecting the body as well as the load—adding years of life to the truck.

Prevents Sidesway

The Trainor OVERLOAD Spring prevents sidesway when driving on a crown road and causes "onesided" loads to ride evenly, thus lessening the danger of tipping over.

No Holes To Drill

Easy to install—no holes to drill—no alterations of frame necessary—only one wrench needed, and an ordinary mechanic can do the job in less than an hour. Absolutely nothing to get out of order.

Ask Your Jobber

Trainor OVERLOAD Springs are handled by reliable Jobbers and Spring Service Stations. Write to yours today for complete information, or if you prefer, write to us.

Backed by 37 years of practical Spring experience

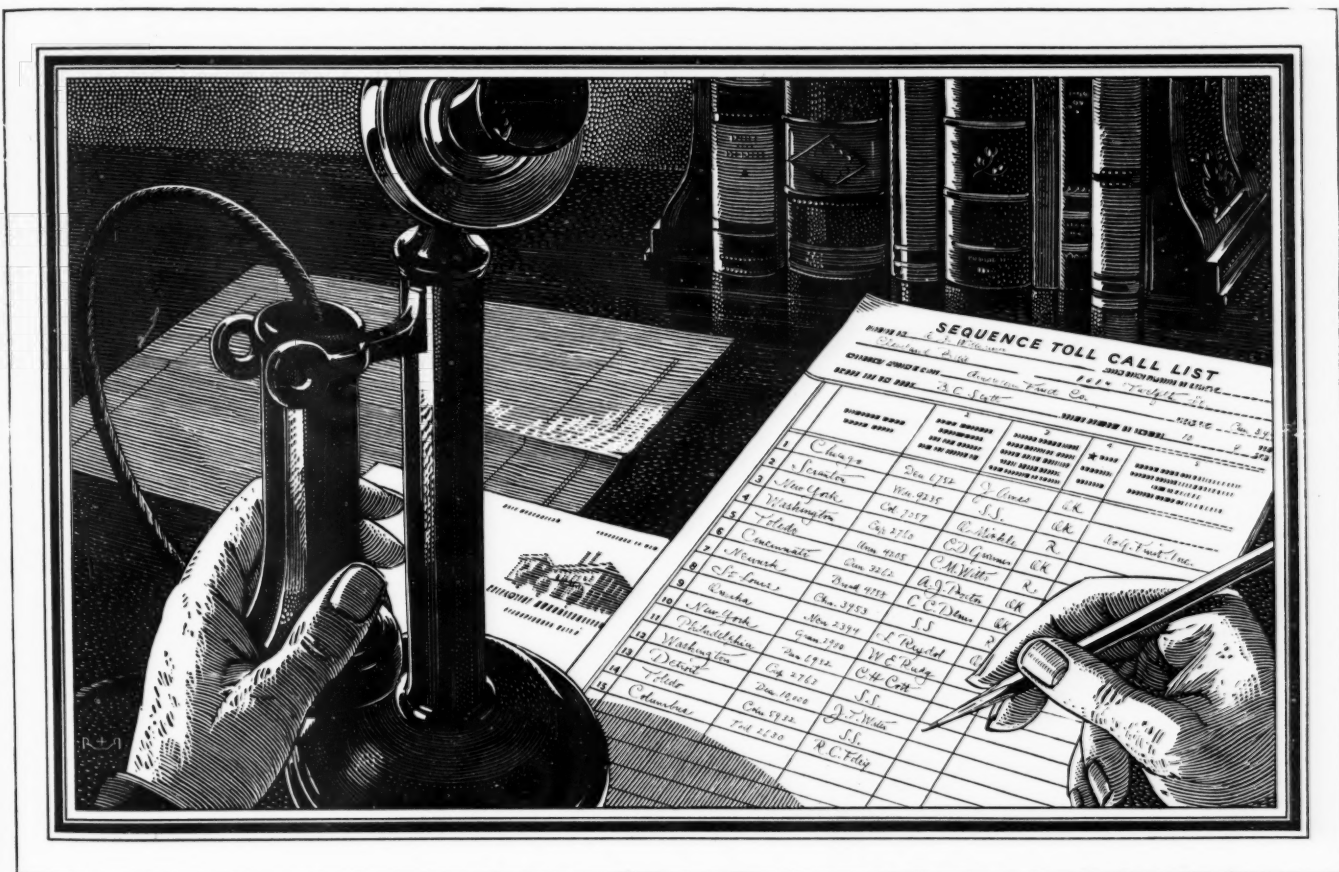
**TRAINOR
OVERLOAD
SPRING**

Jobbers

There is still valuable territory open on this new accessory and you will find our proposition interesting. Write Today!

TRAINOR NATIONAL SPRING CO. Newcastle, Ind.

12 "Sequence" calls \$4721.26 in Fruit and Produce



An Advertisement for Bell Long Distance Telephone Service

A CLEVELAND dealer sold \$4721.26 worth of fruit and produce by eight long distance "sequence" telephone calls costing \$9.20.

This firm had a list of 15 out-of-town customers who might buy up to a carload at a time. The list was filed in advance with the long distance operator. When notified, she started putting the calls through. As one was finished, another was ready. Of the 15 calls placed at this particular time, 12 were completed and 8 resulted in sales.

"Sequence lists" of this kind are another convenience for saving the time of the long distance telephone user. In one morning another Cleveland firm, a financial house, placed 47 sequence

calls in bringing out a new bond issue. Forty-five calls were completed, telephone charges were \$40—and sales \$82,500. An Ontario milling company representative, at a cost of \$8.15, sold seventeen and a half carloads of flour and feed. An Idaho wholesale grocery sold \$7000 worth of goods in an hour.

Long distance telephone service can be custom-made to suit your business. No matter what the requirements of your organization, this swift, economical service can be fitted to them.

What distant calls could you profitably make now? You will be surprised how little they will cost. . . . Calling by number takes less time. . . . *Number, please?*



Confidence and Respect

Above and beyond all other considerations is the fact that the combined trade circulations of *Automobile Trade Journal* and *Motor Age*, approximately 75,000 paid, reach and cover in excess of 85% of the automotive dealer purchasing power in the United States.*

These two well-edited publications are not only subscribed for and paid for, but command the confidence and respect of the consequential components of our vast net work of automotive dealers from the Atlantic to the Pacific, and from Canada to Mexico.

Therefore if you want new retail outlets, and if you wish to keep present retailers favorably impressed concerning the profits advantage of your product, an adequate use of *Automobile Trade Journal* and *Motor Age* will prove most effective—and pleasingly low in cost.

Chilton Class Journal Company

PHILADELPHIA

Publishers of Automotive Business Papers

AUTOMOBILE TRADE JOURNAL
MOTOR AGE
AUTOMOTIVE INDUSTRIES
AUTOMOTIVE INDUSTRIAL RED BOOK

MOTOR WORLD WHOLESALE
CHILTON CATALOG & DIRECTORY
COMMERCIAL CAR JOURNAL
OPERATION & MAINTENANCE

*This fact is proved. A copy of the proof will be sent if you request it.

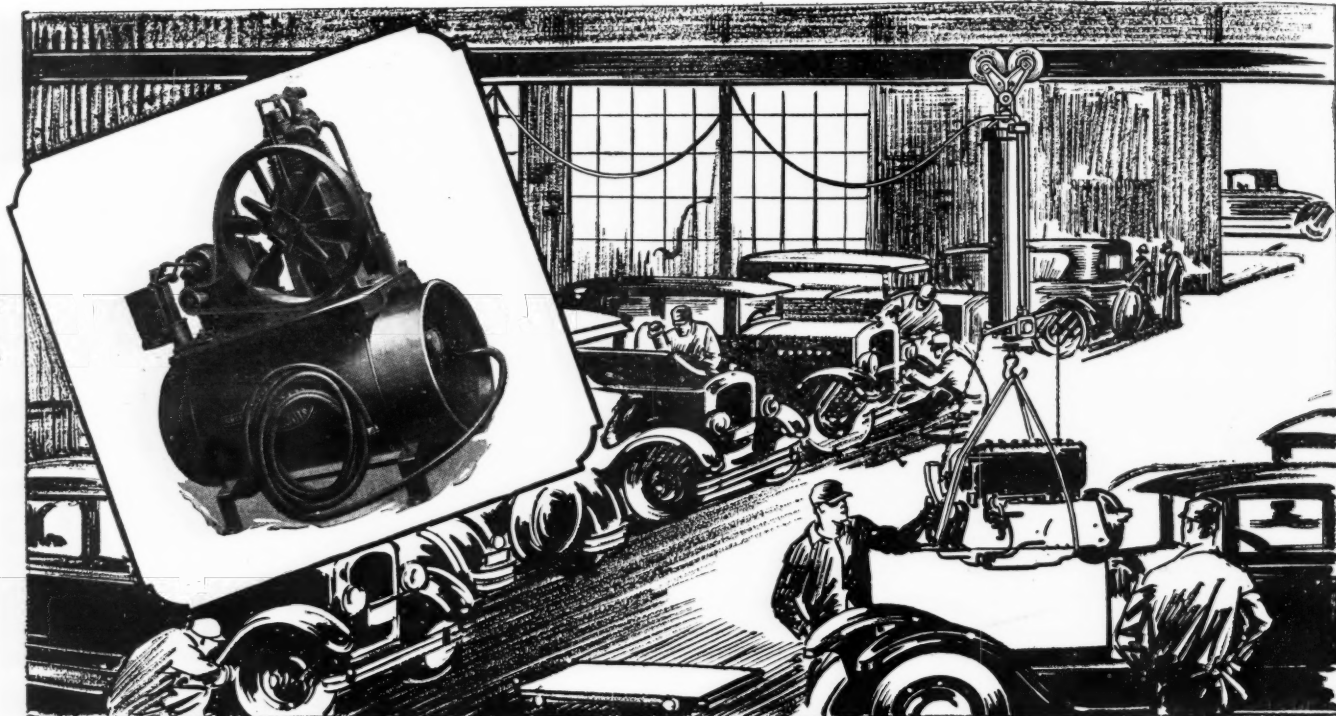
TOMORROW YOU'LL WISH YOU HAD THE AUBURN FRANCHISE

**Because Auburn cars
have gained such a
great acceptance—
and Auburn dealers
have been so success-
ful—information
about the Auburn
franchise, carrying
good discounts and
no commitments,
should appeal to
you. Write us.**

Y O U R N E X T C A R
AUBURN
P O W E R E D B Y L Y C O M I N G

76 Sedan \$1395; 76 Sport Sedan \$1295; 76 Roadster \$1195; 88 Sedan \$1695; 88 Sport Sedan \$1595; 88 Roadster \$1495;
88 Speedster \$1695; 88 Phaeton Sedan \$1895; 115 Sedan \$2195; 115 Sport Sedan \$2095; 115 Roadster \$1995;
115 Speedster \$2195; 115 Phaeton Sedan \$2395. Freight, Tax and Equipment Extra.

AUBURN AUTOMOBILE COMPANY, AUBURN, INDIANA



Curtis Air Hoist costs little more than a chain block

Let Curtis Air Equipment make your business better

With modern air-powered tools and appliances you can handle work in much greater volume; do each job better, more quickly and with larger profit. All evidence shows that the air-equipped shop is making the most of low operating costs.

The ideal source of air for this equipment is the Curtis Compressor—product of 30 years pneumatic engineering experience. The Curtis Compressor embodies all the manufacturing skill of this 73-year-old organization. As a result it serves you longer and requires less attention. And always there is behind it a responsibility that is rated at "a million or over".

Highly organized production keeps Curtis prices low. You will find Curtis Compressors "Easy to Buy" from dealers and jobbers everywhere.



Curtis

Pneumatic Machinery Company

St. Louis

74th
Year

1957 Kienlen Ave., St. Louis

518 U Hudson Terminal, New York



PULL-A-SHADE

(Patents Pending. Trade Mark Reg. U. S. Patent Office)

Operates Rear Curtain From Driver's Seat

FITS ANY CLOSED CAR

What 20 Million Motorists
Are Waiting For

List **\$3⁵⁰**

Liberal Discount, Sold Through Leading Jobbers

Booth 600

Boston Auto Show

REN MFG. CO.

1502 Main Street, Winchester, Mass.

*There are Profit Making Ideas
in Every Issue of*

MOTOR AGE

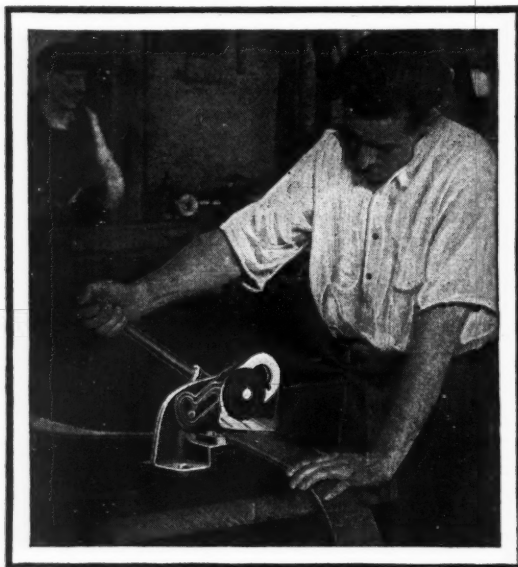
Many subscribers of MOTOR AGE, who realize the value of its contents each week, route every issue regularly through their places of business to all departments.

As a means of business-building this is a profitable habit to encourage, both for the benefit of the organization and its individual members. It is always best to read MOTOR AGE every week.

MOTOR AGE

CHESTNUT and 56th STS.

PHILADELPHIA, PA.



One stroke cuts lining Cleanly and Quickly

Don't waste your time trying to cut brake lining with shears, knives or any old thing lying around. Be up-to-date. Use "Yankee" No. 2000 Brake Lining Cutter. Not only on fast jobs, but on every lining job day in and day out, the convenience of this dependable cutter is worth while.

"YANKEE" No. 2000 Cutter Price \$17.25

Can be fastened to bench or floor, or mounted on board so it's portable. Lever operates a rack and pinion movement. Knives are highest grade steel. Adjustable in case of wear.

Capacity, $\frac{3}{8}$ x 6 in. Cuts belting also. Extreme length, $11\frac{1}{2}$ in. Height, closed, 7 in. Open, $8\frac{1}{2}$ in. Handle length, 13 in. from center. Weight, 22 lbs.

Some Other "Yankee" Tools

Ratchet Breast Drills
Ratchet Hand Drills
Plain Screw-drivers
Ratchet Screw-drivers

Automatic Feed Bench Drills
Automatic Feed Chain Drills
Ratchet Tap Wrenches
Vises, Removable Base

Dealers everywhere sell "Yankee" Tools

"Yankee" on the tool you buy means the utmost in quality, efficiency and durability.



Write for FREE "Yankee" Tool Book

This interesting little book is for all lovers of fine tools. It tells just what you want to know about all the famous "Yankee" Tools for making work easier and quicker. Write for your copy today.

NORTH BROS. MFG. Co.,
Philadelphia, U. S. A.

"YANKEE" TOOLS

Make Better Mechanics

MOTOR AGE

What the engine is to the
automobile—

■ ■ ■

what the propeller is to the
airplane—

■ ■ ■

what electricity is to the
dynamo—

■ ■ ■

what broadcasting is
to radio—

■ ■ ■

Motor Age is to automotive
dealers: An indispensable
factor in buying, advertising
and selling.

■ ■ ■

STANDITALL
AUTO RADIATOR



STANDITALL
AUTO RADIATOR

The unique construction of STANDITALL Radiators eliminates much of the old-fashioned separator or "dummy." The waterways are more spacious and closer together, thus providing *freer* circulation and a *wider distribution* of the water to be cooled.

That's why STANDITALL provides more heat dissipation per cubic inch than the ordinary kind—meaning less "boiling" and need for water replenishment.

J. C. BLACK MFG. COMPANY

Oil City, Pa.

Export Department, 116 Broad St., New York City

Pacific Coast

Southern States

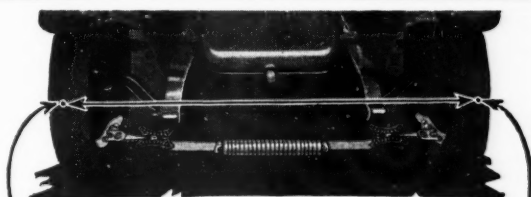
Northwestern States

Harry E. Marshall
865-7 Folsom St.
San Francisco, Cal.

L. E. Spencer Co.
Nashville, Tenn.

Roper-Smith Co.
310 Gorham Bldg.
Minneapolis, Minn.

STANDITALL
AUTO RADIATOR



Measures toe-in at hub level—special calibrated dials give reading in sixteenths of an inch

The New Bear Aligner No. 10

—GREATEST TOOL OF THEM ALL—

Measures PITCH as well as toe-in.
Finds bent spindle arms.
Straightens bent and twisted axles.
Lines up rear wheels so they track.
For all cars and trucks.

This tool will earn its cost the first week—from then on it's "velvet." Ask your jobber-salesman, or write at once and get full information. FREE Instruction Manual tells how to line up wheels and axles—sent on request.

BEAR MANUFACTURING CO.

Rock Island, Ill.

Also makers of the Bear Axle Gauge, Tracking Gauge, and Axle Aligning Attachments—the only Wheel and Axle Alignment Service for garages that is complete, accurate and practical.



Quick Service on Rewinds

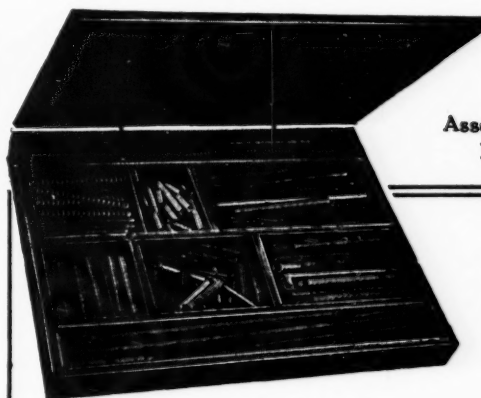
If you are looking for quicker deliveries on all your armature and field coil rewind jobs you will save time on deliveries and money on the work by sending them to the "Armature Rewinders." Work is guaranteed and prices are low.

WRITE FOR OUR SPECIAL PRICES ON
FORD ARMATURES IN QUANTITIES

Peatross & Arthur

"The Armature Rewinders"

1643 West Broad Street, Richmond Va.



Assortment
No. 2

Small Springs! The Seeds of Big Profits

A Peck's Spring Assortment is more than a convenience—it's an opportunity for you to make money! For example, Assortment No. 2, shown above, contains 250 finished steel and brass extension and compression springs. You buy it for \$3.50, sell springs at 25 cents each and make net profit of \$59.00. A spring for every need when you need it—that's a Peck's Spring Assortment! Others at \$1.50 and \$5.00. Ask your jobber for Peck's or write us!

THE PECK SPRING COMPANY, Plainville, Conn.

PECK'S SPRING
ASSORTMENTS

Rubyfluid



Makes a Tight Joint

The results of your work with Rubyfluid are right. You know that before you start.

That's why this non-corrosive, non-explosive, non-injurious soldering and tinning flux is preferred by mechanics everywhere. Do a job with Rubyfluid. You'll like it.

The Ruby Chemical Co.
68-70 McDowell St., Columbus, Ohio

clean
with

Clean up for Spring!

Do it safely, economically. Remove grease and road dirt from the service floor and driveway, smudge from walls and windows, weather stains from gas pumps. Clean up with Oakite and the Spring rush will find you prepared. Booklet on request.

Oakite is manufactured only by
OAKITE PRODUCTS, INC.
18E Thames Street New York, N. Y.

OAKITE

Industrial Cleaning Materials and Methods

Mounts Chain Tightly In One Minute



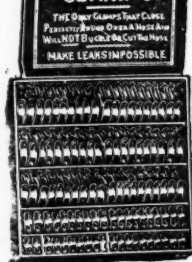
The EZ-CHAIN-ON makes it possible to put chains on tightly without jacking the car, taking up the slack or soiling the clothes—all in one minute. And how they sell! List at 35c each, 65c per pair. Liberal discount. See your jobber.

Protex-A-Motor Mfg. Co.
Pittston, Pa.

EZ-CHAIN-ON

TIRE CHAIN MOUNTERS

IDEAL HOSE CLAMPS



No. 100

IDEAL HOSE CLAMPS in ASSORTMENT DISPLAYS

give you a small, complete stock of standard car sizes and a GOOD PROFIT.

Ask for complete catalog

IDEAL CLAMP MFG. CO. INC.

200 BRADFORD ST. BROOKLYN, N.Y.

FOLLETT'S NEW MODEL TIME STAMP



Learn the interesting details from our descriptive data.

accounts for every labor minute

Prints the year, month, day, hour, minute, A.M. or P.M. at the exact moment the plunger is pressed—like this, for example:

NOV 19 1920 4 31 PM

Tells when a job is started—and when it is finished. There can be no dispute over the time charge.

Absolutely automatic — except for winding. Every machine guaranteed.

Follett Time Recording Co., 217 High Street, Newark, N.J.

"Established Since 1904"

Every Car Owner Needs

"Common-Sense"
Closed Car
Ventilators

Now

Tell
Them So and
Increase Your Profits
Ask Your Jobber or

Write ACKERMAN-BLAESSER-FEZZEY, INC., Manufacturers of "Common-Sense" seat snubberettes for auxiliary seats in closed cars.
1258 Holden Avenue Detroit

Read It!

- 1 for fresh news
- 2 for new selling plans
- 3 for merchandising ideas
- 4 for hints on buying
- 5 for better servicing
- 6 for lower overhead
- 7 for increased profits

It will pay every dealer
to read every issue of

MOTOR AGE

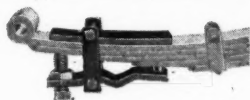
**R.I.V. Means Quality
in Every Language**



250 West 57th Street

New York City

Weidenhoff Shop
Equipment
for Battery and
Electrical Service
4358 Roosevelt Road Chicago, Illinois

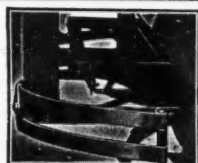


The
SUPERIOR REBOUND CONTROL
adds riding comfort to the car and greatly
prolongs its life.
See our Full Page Advertisement in the
February 16th Issue.

SUPERIOR REBOUND CONTROL, Inc.

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Kenosha, Wis.



"Bellevue"
Side-Plate
Trunk
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Most efficient
for all Cars



The Bellevue Mfg. Co.

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The Book
"AIR PROFITS"
Shows how to get
more work out of
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How to use com-
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BRUNNER
AIR COMPRESSORS

Do you know about
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Hydraulic Double Acting
SHOCK ABSORBERS

Write
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539 E. Delavan Ave.

Buffalo, N. Y.

CHANSON
SHOCK ABSORBERS
Unconditionally Guaranteed

Mfd. by CHANSON DIVISION, Illinois Iron & Bolt Co., Carpentersville, Ill.

JOHN M. NEWTON AND SONS, Limited,
Charles Street, London, are prepared to nego-
tiate for the sale of their process for the manu-
facture of splinterless glass in the United
States, the patents for which have been ap-
plied for. All communications to Messrs.
Chantrey Button & Company, 61-62 Lincolns
Inn Fields, London W. C. 2.

Senior (all nickel) \$4.50
Junior (all nickel) 3.50



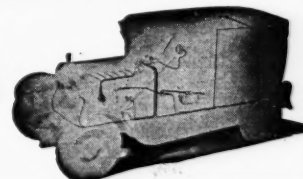
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SELF-LOCKING
RADIATOR CAPS

Ask your jobber or write us
THE NORLIPP COMPANY
568 W. Congress St. Chicago

Eagle . . . \$6.00
Eaglet . . . \$4.00
Includes Initial or Emblem Plate



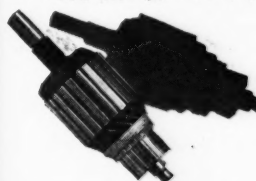
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Cable
The Packard Electric Co.
Warren, Ohio



JOHNSON

Every Johnson Quality Bronze Bushing produced
today must safeguard a most enviable reputation
gained thru a quarter century of successful operation.
Johnson Bronze Co., New Castle, Pa.

BUSHINGS - BARS
- BEARINGS



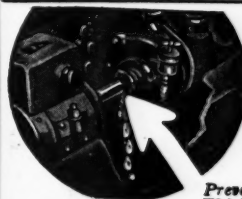
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Rewinding Chevrolet armatures, \$2.00.
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automobile generator or starter armature,
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**Stops Pump-shaft Leaks and
Saves the Winter Solution**

**CONNEAUT PLASTIC METALLIC PACK-
ING** will keep the water-pump tight no matter
what winter solution is used.

All sizes in one can. Stocked with your Jobber
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SWAP a postage stamp for
thousands of dollars worth of
real facts on Car Washing. Send
for your free copy of the hand
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MANLEY MFG. CO.
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Dealers! Now Your License Plates Snap on and off!

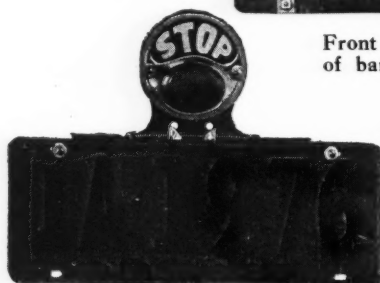
Use QUICK CHANGE License Plate Holders on your demonstrators—in moving cars to and from warehouses—and save labor every time you switch plates. QUICK CHANGE License Plate Holders snap on and off front bar or bumper and rear bracket. They grip. Won't rattle, swing or jar off. Adjust to fit any size plate on any car. Time is money—save it with Quick Change Holders. Send the coupon below:



We split sets for dealers in states requiring only one license plate.



Front and rear view of bar installation.



Front and rear view of bracket installation.

Quick Change License Plate Holders conform with all state laws.



Lawrence E. Woolf
White Plains, N. Y.

QUICK CHANGE LICENSE PLATE HOLDERS

Lawrence E. Woolf, White Plains, N. Y.

Send us.....complete sets of \$2.00 per set, postpaid.

☐ send.....Front Plate Holders only at \$1.00 each.

☐ send.....Rear Plate Holders only at \$1.00 each.

Name.....

Street.....

City.....State.....

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That Dressy Appearance on the service floor

**A
Business
Builder
for You**

Attention to cleanli-
ness and personal
appearance espe-
cially appeals to
women drivers and
as this trade is
constantly on the
increase, it is a
vital part of any
plan to enlarge
volume of service
work.



**FIRM,
HEAVY,
TAN OR
WHITE**

HERRINGBONE FABRIC

pre-shrunk—used in cutting KLEENKAR garments—
is specially woven for this purpose. Will wear well
and launder without excessive shrinkage. Wide fac-
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shape after laundering. KLEENKAR Service Coats
are cut either short, 42 in., Regular, 46 in., or long,
50 in. Sleeve lengths in proportion. Write today for
sample materials and complete information.

KLEENKAR FABRIC EQUIPMENT CO.
235 E. WATER STREET MILWAUKEE, WIS.

**KLEENKAR
SERVICE
GARMENTS
are Pre-Shrunk**

BANG!

When two cars bump at the crossing, with smashing glass, bent fenders, etc., the crowd that immediately collects represents *no particular group of people*. It includes bankers, brokers, grocer boys, bootleggers, candle stick makers, *et al*.

But with your dealer message appearing in the trade's principal newspaper (edited for 25,000 trade units, comprising the industry's real merchandising effectives), the circulation is *really effective*—with waste comparable to that fractional percentage of impurity that the makers of Ivory soap claim for their product.

Have you noted the recent changes in MOTOR AGE, which are giving it an odds-on advantage in the automotive news field? MOTOR AGE is getting a lot of favorable reaction from its subscribers—reaction that spells increasing value to those manufacturers who use its advertising pages.

MOTOR AGE circulation is paid. Except for AUTOMOBILE TRADE JOURNAL, which has a fractional advantage, the percentage of voluntary subscription renewal is the highest of any automotive publication. A charter member of the A.B.C. An advertising vehicle that will carry your dealer message the whole distance.

If you are interested in a market analysis to determine, in a practical manner, just how your product can best be merchandised via automotive trade channels, we will be glad to place our unusual research facilities at your service.

MOTOR AGE

A Chilton Class Journal Publication

CHESTNUT and 56th STREETS, PHILADELPHIA

for Economical Transportation



Thrilling Performance

Now the Bigger and Better Chevrolet offers new elements of smoothness, power, and acceleration—*proved on world's greatest proving ground*

New smoothness at every point on the speedometer—new power that sweeps aside the hills—new acceleration and new four-wheel brakes that make traffic driving a pleasure—new riding comfort and handling ease—these are outstanding features of the car sold by Chevrolet dealers this year.

But even more important is the fact that all of these new qualities and advanced

engineering features have been thoroughly proved by tens of thousands of miles of testing on the General Motors Proving Ground.

Thus the Bigger and Better Chevrolet not only makes a spectacular impression upon first demonstration, but provides lasting satisfaction that creates owner good will, owner resales and greater dealer profits.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN

Division of General Motors Corporation

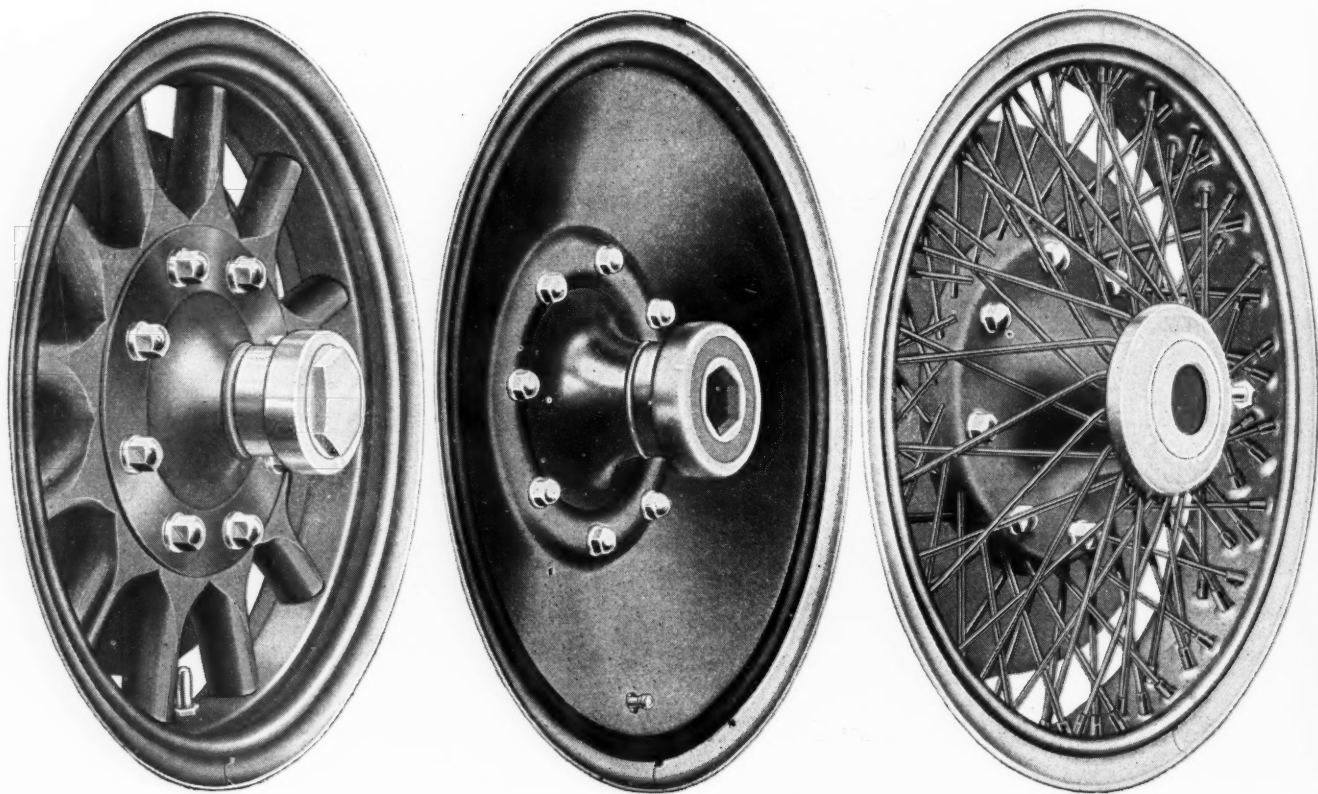
—AT THESE LOW PRICES!

The Touring or Roadster	\$ 495	The 4-Door Sedan	\$ 675
The Coach	\$ 585	The Sport Cabriolet	\$ 665
The Coupe	\$ 595	The Imperial Landau	\$ 715

All prices f. o. b. Flint, Mich.



Wood · Steel · Wire



ENGINEERING excellence and beauty made standard Motor Wheel wood wheels the most widely accepted wheels in the Industry. Only when the same quality could be incorporated into a wood wheel *demountable at the hub*, was this type sponsored by Motor Wheel. With Disteel wheels and Motor Wheel wire wheels, this makes possible an absolutely interchangeable line of demountable wheels, all of Motor Wheel character. In addition, the Motor Wheel line includes Tuarc steel wheels for demountable rims.

Wheels by Motor Wheel mean that one source of wheel supply can precisely suit Engineering, Production, Sales, Dealers and Public.

MOTOR WHEEL CORPORATION, LANSING, MICHIGAN

Motor Wheel

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PRODUCTS